

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 108

January 29, 1979

CHRISTMAS FUND FOR CHILDREN'S HOSPITAL

The following letter was received from Children's Hospital National Medical Center:

"Each year more than one hundred and fifty thousand children from Washington, Maryland, and Virginia, receive care through Children's Hospital National Medical Center. On their behalf we thank you for your recent contribution in the amount of \$781.00.

"Your gift will be applied to patient care services, helping us to assure that no sick child will be denied the care he or she needs regardless of the family's ability to pay. Ultimately, your support will be reflected in improved programs of child health and development throughout the metropolitan area."

ANIMAL SCIENCE INSTITUTE (ASI)

Dr. Anson R. Bertrand has approved the establishment of an Animal Science Institute that will combine laboratories in the former Animal Physiology and Genetics Institute (APGI), with the Ruminant and Non-Ruminant Laboratories from the former Nutrition Institute. As part of this consolidation, the Feed Energy Conservation, Genetics and Management, and Nutrient Utilization Laboratories in APGI will be abolished, and personnel transferred to other laboratories in the Institute. A new laboratory, Milk Secretion and Mastitis, will be established within ASI. As announced previously, Lewis W. Smith will serve as Chairman of ASI.

LABORATORY NAME CHANGE

The name of the Medicinal Plant Resources Laboratory, Plant Genetics and Germplasm Institute, has been changed to Economic Botany Laboratory (EBL). The new name is more descriptive of the research being conducted by James A. Duke, Chief, and other EBL personnel.

NEW EMPLOYEE

Carll E. Goodpasture, Research Entomologist, has joined the staff of the Beneficial Insect Introduction Laboratory (BIIL), IIBIII, effective December 3, 1978. Dr. Goodpasture was formerly Research Geneticist at the SEA-AR Metabolism and Radiation Research Laboratory, Fargo, North Dakota. His research at BIIL will concern the biosystematics of parasitic insects, initially Trichogramma parasites of crop pests, utilizing experimental and classical taxonomic methods.

VISITING SCIENTIST

Eugene A. Fitzpatrick, from The University of New South Wales, Sydney, Australia, is spending a 6-month sabbatical leave at the Hydrology Laboratory, PPHI. Although Professor Fitzpatrick is a U.S. citizen, he has spent most of his professional career in Australia with the CISRO, and at several universities. His formal academic background is in physical geography, but his research interests are in agricultural climatology and hydrology. During his stay at the Hydrology Laboratory, he will be working with lab scientists on the application of water balance accounting models to remote sensing studies and the analysis of potential droughts from climatic variability. Professor Fitzpatrick will be with the laboratory until mid-June 1979.

COOPERATIVE ACTIVITIES

Coleoptera Catalog. The first of 123 parts of a computerized catalog of the Coleoptera of America north of Mexico was published in November 1978, in USDA Agricultural Handbook 529-47. Francisco Pacheco is the author of this fascicle, the Heteroceridae. The catalog is a long-term, cooperative project involving the Systematic Entomology Laboratory, IIBIII, the Communications and Data Services Division, USDA, and 60 taxonomists in the Western Hemisphere who have volunteered to contribute the primary information for each of the fascicles. The catalog provides the currently accepted names and synonyms of beetles occurring in the area with references to the original descriptions of all taxa; geographic distribution, host data, subsequent bibliographic references, type-locality, current location of type specimen, and original genus for specific names; type-species and method of designation, and subsequent references for generic names. Each family will be published as a separate fascicle with a bibliography and index. Two fascicles are in press, and 13 additional families are being processed.

GERMPLASM RELEASES

Gene J. Galletta, and Arlen D. Draper, Fruit Laboratory, PGGI, have distributed the release notice for Bluechip, a new blueberry cultivar being introduced jointly by the Science and Education Administration, Agricultural Research, and the North Carolina Agricultural Research Service.

GERMPLASM RELEASES (Continued)

P. Stephen Baenziger and John G. Moseman, Field Crops Laboratory, PGGI, have distributed the release notice for Barley Composite Cross XXXV, XXXV-A TO C, spring barley germplasm resistant to leaf rust, powdery mildew, and scald.

Raymon E. Webb, Vegetable Laboratory, PGGI, has distributed the release notice for Delta Gold, a new potato variety being introduced jointly by the Science and Education Administration, Agricultural Research, and the Maine Life Sciences and Agriculture Experiment Station, Orono, Maine.

FWP & FEW

The FWP Subcommittee of the BARC-EEO Committee believes that many people confuse the FWP with FEW. The following explanation should clarify their relationship:

The Federal Women's Program (FWP) seeks to enhance the Federal employment opportunities for women in every area of the Federal service. It is administered by the Office of Personnel Management, and is an integral part of the overall Equal Opportunity Program.

Federally Employed Women, Inc. (FEW), is a private organization, and is concerned with the same goals as the Federal Women's Program. FEW and FWP are not in conflict, in that their mutual goals and objectives are formulated to eliminate sex discrimination in Federal employment.

NEW TELEPHONE NUMBER

The Plant Introduction Station, Glenn Dale (C-P Area), is now served by the USDA Centrex system. Their new telephone number is 344-3003.

EMPLOYEE ACTIVITIES

Several members of the Insect Identification and Beneficial Insect Introduction Institute attended the annual meeting of the Entomological Society of America (ESA), in Houston, November 26-30. Paul M. Marsh, Eric E. Grissell, Robert W. Carlson, and Arnold S. Menke, presented a symposium on the identification and importance of parasitic and predatory wasps. Ronald W. Hodges, Chief, Systematic Entomology Laboratory, organized and moderated the symposium, "Systematic Resources and the User Community," and presented a paper "The Future for Entomological Systematics." John M. Kingsolver presented a paper on "Coevolution of Plants and Insects." Robert W. Gordon and Donald R. Whitehead, who hold offices in the Coleopterists Society, which meets jointly with the ESA, attended executive meetings. F. Christian Thompson conducted a workshop on the proposed changes in the International Code of Zoological Nomenclature. Lloyd V. Knutson, Chairman, IIBIII, chaired an informal conference of the ESA

EMPLOYEE ACTIVITIES (Continued)

Standing Committee for Systematics Resources in Entomology and led a discussion of the ESA Plan for Systematic Entomology.

Charles D. Foy, Plant Stress Laboratory, PPHI, presented an invitational paper, "Adaptation of Crops to Acid Soil Conditions," at the Annual Meeting of the American Society of Agronomy (Georgia Chapter), held at the University of Georgia, in Athens. The invitation resulted from a growing concern that strong subsoil acidity (Al toxicity) is limiting root penetration and therefore drought resistance and yield of crops in the Southeastern U.S. Also, Dr. Foy consulted with several State and Federal soil and plant scientists who are exploring the genetic potential in plants for adaptation to soil mineral stresses (toxicities or deficiencies) that are not economically correctable with current technology.

ANTICIPATED IIBIII TRAVEL

Robert D. Gordon, Systematic Entomology Laboratory, January through February 3; and R. F. W. Schroder, Beneficial Insect Introduction Laboratory, January 25 through February 27, to Peru, to conduct explorations for natural enemies of Epilachna beetle pests of soybeans and Diabrotica beetle pests of corn.

COOPERATIVE ACTIVITIES

At the request of U.S. and Mexican regulatory entomologists (USDA-APHIS, Sanidad Vegetal, and Florida and California Departments of Agriculture) who were conducting an avocado pest survey in northwestern Mexico, Donald R. Whitehead, Systematic Entomology Laboratory, IIBIII, spent September 9-17 at La Paz, Baja California Sur. The purpose of his trip was to make authoritative on-the-spot identifications of possible avocado pests. Results of the survey were negative, but suggestions were made for improved surveys.

HONORS AND AWARDS

Honors:

Word was received recently that an extinct porpoise has been named in honor of Howard W. Hruschka by Albert C. Myrick, formerly of the Smithsonian Institute. Howard is a recent retiree of the Horticultural Crops Marketing Laboratory, AMRI. The porpoise, Rhabdosteus hruschkai, Myrick, was found in formations of the Miocene era in the Calvert Cliffs of southern Maryland. Howard has searched for fossils in these cliffs for years and has turned over many of his finds to the Smithsonian. We believe that this is the first time a member of the Smithsonian has recognized the contributions of a member of BARC to their prehistoric collections, and honored that individual by naming a species after him.

Honors: (Continued)

At the annual election of officers held in November 1978, the local Section of the American Chemical Society elected Nagabhushanam Mandava, Plant Hormone and Regulators Laboratory, PPHI, to a 3-year term as Councilor. During his tenure as Councilor, he will represent the Washington Section in matters arising before the Council of the American Chemical Society.

Quality Within-Grade Increase:

Enkiri, Nancy K., Biological Waste Management and Organic Resources Laboratory, AEQI.

Cash Awards:

Cress, Shirley C., Vitamin and Mineral Nutrition Laboratory, NI.

O'Brien, Dolores B., Chairman's Office, IIBIII.

Whitehead, Andrew C., Farm Management Branch, Division of Operations.

VISITORS

Colorado--Dr. Fredrick Holbrook, Research Entomologist, Arthropod-Borne Animal Diseases Research Laboratory, SEA, Denver, visited the Biological Evaluation of Chemicals Laboratory, AEQI, January 9-11. In cooperation with Neal O. Morgan and Kathleen L. Staker, he tested the laboratory's wind tunnel method for evaluating insecticides against Culicoides variipennia, the vector of Bluetongue of sheep and cattle. Dr. Holbrook was so impressed with the simplicity of the method and the results with seven different insecticides that he is recommending the purchase of a duplicate set of equipment for the Denver Laboratory. Culicoides spp. are tiny biting flies, usually less than 3 mm long, that can crawl through most test screens. The laboratory used a new, very fine mesh knit screen that satisfactorily contained the flies and still allowed the insecticide droplets to contact target insects.

Curacao--On December 14, Mr. Henriquez, from Curacao, representing the Netherlands Antilles Embassy, conferred with the Medicinal Plant Resources Laboratory, PGGI, about possible collaborative work, especially on jojoba. Mr. Henriquez was interested in the feasibility of jojoba as a new crop for the drier parts of the Dutch Antilles. He suggested that a collaborative effort be initiated for providing Antillean botanical specimens for the Cancer Screening Program.

VISITORS (Continued)

England--Dr. G. Davies, Head of the Epidemiology Unit, Ministry of Agriculture and Food, Agricultural Development and Advisory Service, Central Veterinary Laboratory, Surrey, England, visited the Animal Improvement Programs Laboratory, APGI, on December 4, to discuss the potential of field recordkeeping programs such as the National Cooperative Dairy Herd Improvement Program for obtaining disease information on livestock. Dr. Davies was accompanied by Dr. W. C. Ray, Veterinary Services, APHIS.

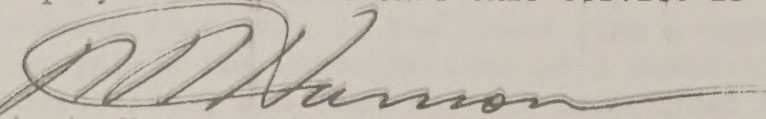
France--Dr. John J. Drea, Chief of SEA's European Parasite Laboratory (EPL), Sevres, France, visited Jack R. Coulson, Technical Advisor for EPL and Chief, Beneficial Insect Introduction Laboratory, IIBIII, from November 27 to December 1. A meeting was held at BARC on December 6 and 7 to discuss the Paris laboratory's overseas biological control program and its plans for 1979-1980. Attending the meeting were: Dr. Drea, Mr. Coulson, Dr. R. J. Dysart, Chief, Beneficial Insects Research Laboratory, Newark, Delaware, Dr. D. E. Bryan, NPS, and Dr. L. V. Knutson, Chairman, IIBIII.

Korea--Messrs. Park Hee Kyoo, Kim Il Jong, and Kim Dong Il, representing the Office of Monopoly, Republic of Korea, visited the Medicinal Plant Resources Laboratory, PGGI, on December 22, to discuss possibilities for collaborative work on ginseng. The laboratory provided them with a slide show illustrating James A. Duke's medicinal plant studies in the People's Republic of China. The presentation included many slides of Chinese ginseng (Panax) and spiny ginseng (Acanthopanax).

Russia--Dr. Robert Zakharian, Director, Laboratory of Nucleic Acids, Institute of Experimental Biology, Armenian Academy of Sciences, Armenian SSR, USSR, visited Robert M. Faust, Insect Pathology Laboratory, PPI, on January 11-12. The purpose of the visit was to discuss the proposed cooperative agreement between Dr. Evrik Afrikian, Director, Institute of Microbiology, Armenian Academy Sciences, and Dr. Faust, on recombinant DNA studies with Bacillus thuringiensis and B. popilliae, two entomopathogenic bacteria of commercial importance. Current efforts, status, and research accomplishments were discussed in detail. Dr. Zakharian also met briefly with Paul A. Putnam, Assistant Director, BARC; Burton Y. Endo, Chairman, PPI; Lowell Owens, Cell Culture and Nitrogen Fixation Laboratory, PPHI; and with other members of the Insect Pathology Laboratory.

TELEPHONE CHARGES

The cost of local calls (initiated by dialing 9) was discussed at the Director's Staff Meeting on January 16, 1979. It was pointed out that each call costs the Center about 8¢. The intent was to put all employees on notice that this service is expensive.



A. A. Hanson, Director
Beltsville Agricultural Research Center

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NOTES FROM THE DIRECTOR

No. 109

March 15, 1979

WELCOME, GLENN DALE PERSONNEL!

The 12 SEA employees at the Plant Introduction Station, Glenn Dale, have been reassigned to BARC, following the realignment of programs in the former Chesapeake-Potomac Area. We are pleased to welcome Dr. Howard E. Waterworth and his fine staff to the Center. They will be in the Germ-plasm Resources Laboratory, PGGI. They have a very essential and well coordinated program which contributes much to the research in SEA. We welcome these employees to BARC and look forward to working with them.

PHILIP C. KEARNEY COMPLETES SPECIAL DETAIL

In January 1978, Philip C. Kearney, Chief of the Pesticide Degradation Laboratory, AEQI, was detailed to the USDA Office of Environmental Quality Activities as the Acting Pesticide Coordinator for the Department. Dr. Kearney served in this job for almost a year but now has returned to his position as Laboratory Chief at BARC.

Recently, the Director's Office was pleased to receive a copy of a memorandum from Assistant Secretary Cutler expressing deep appreciation for Phil's outstanding service during this extended detail. Secretary Cutler noted that although Dr. Kearney was encouraged to apply for the permanent position, he declined the invitation preferring to return to his research activities. Dr. Kearney dealt with many complex and sensitive issues in the pest management area. The following is quoted from Secretary Cutler's memorandum: "Phil's knowledge and expertise was of immense aid to me and to the Office of Environmental Quality Activities. Phil worked exceptionally well with other agencies, citizen organizations, and professional and business organizations, successfully solving many complex issues. We hold Phil in the highest esteem. We miss him here but appreciate your need and his desires to return to the 'world of science.'"

VOTE OF THANKS

We extend sincere thanks to the following employees who made certain that experimental plants and animals received care when the Center closed on Tuesday, February 20--in deference to the snowstorm of '79:

BEEF/SHEEP UNIT-ANIMAL OPERATIONS: Clarence Beall, Robert Buschling, John Dumond, John Hill.

DAIRY UNIT-ANIMAL OPERATIONS: Thomas Anderson, Paul Brocht, Michael Gillespie, William Greenfield, Elwood Keener, George Klischer, David Lind, David Maust, Charles McKelvey, Walter Nye, Patty Sheehan, James Snyder, Len Strozinski, Duane Taylor.

MEAT ANIMAL UNIT-ANIMAL OPERATIONS: William Peters.

POULTRY UNIT-ANIMAL OPERATIONS: Raymond Thieman.

SWINE UNIT-ANIMAL OPERATIONS: Robert Figulski, Delbert Parsons.

VETERINARY SERVICES UNIT-ANIMAL OPERATIONS: John Sigler, Ben Stroud.

FARM BRANCH-DIVISION OF OPERATIONS: Cleveland Brown, Charles Cahall, Pierce M. Damewood, Preston A. Enzian, Meredith Fouche, George A. Hobbs, Keith A. Hummel, Victor L. Miller, Victor J. Roth, Andrew C. Whitehead.

SHEET METAL SHOPS-DIVISION OF OPERATIONS: Ernest W. Seger.

AGRICULTURAL ENVIRONMENTAL QUALITY INSTITUTE: John B. Munns.

AGRICULTURAL MARKETING RESEARCH INSTITUTE: Richard H. Day.

ANIMAL PARASITOLOGY INSTITUTE: John A. Billhimer, Ronald G. Burke, James L. Byler, Billy G. Byrd, Raymond J. Fix, Kenneth L. Glover, Wilmer L. Lambert, Leroy Montgomery, Joel T. Nupp, George F. Shaffer, James J. White, Owen B. Wilkins, James R. Youmans.

ANIMAL SCIENCE INSTITUTE: Roy Brocht, Bruce Cooper, Betty Davis, David Dinius, Howard Opel, Ronald Pearson, Floyd Sweeney, Dale Waldo, John Whitehead, Larry Wood.

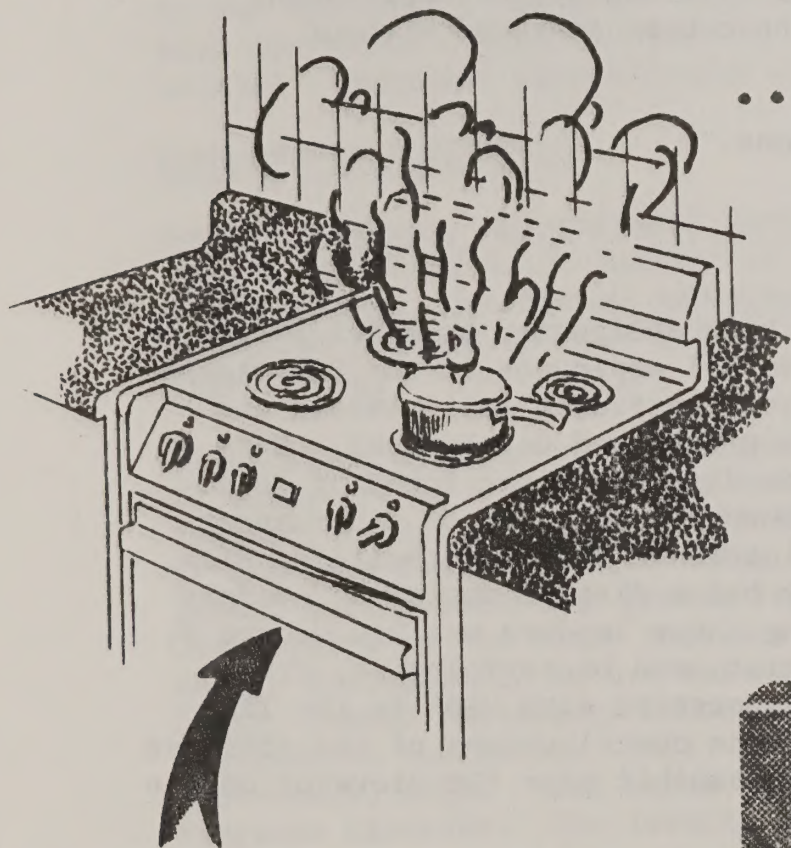
PLANT GENETICS AND GERMPLASM INSTITUTE: William P. Bullock, Gerald E. Coe, Thomas C. Elden, Lenard E. Gilreath, Joe L. Goodlett, Wendell H. Headley, Gary Keane, Douglas D. Powell, Roger H. Ratcliffe, Harold A. Skoog, Lawrence J. Slana, Charles K. Thomas, Kenneth L. Tuthill, Brian C. Zeichner.

energy notes ³

BELTSVILLE RESEARCH CENTER ENERGY COMMITTEE

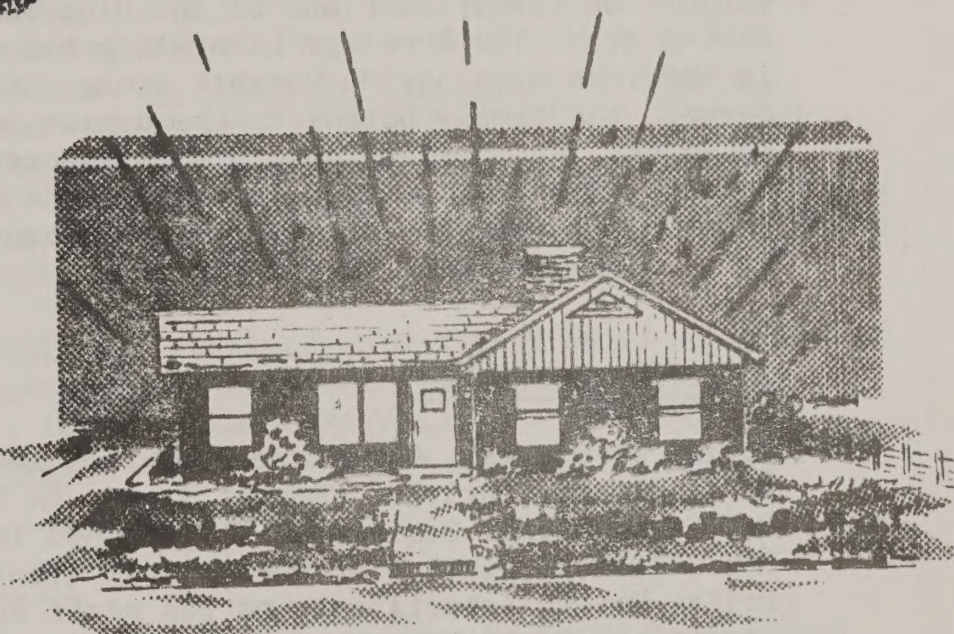
SEA, U.S.D.A.

MARCH 1979



*turn element off
immediately
after use.*

...one heating element
on electric stove is
equivalent to all the
lights on.



LETTER OF APPRECIATION

Maynard B. Leishear, BARC Administrative Office, received the following memorandum from Anson R. Bertrand, SEA Director:

"Thank you so much for the fine effort you made to support SEA's Combined Federal Campaign. With your help, SEA was able to contribute over \$90,000 to the \$500,000 that was raised Departmentwide. It was a tremendous accomplishment for our agency and could not have been achieved without your assistance.

"Thanks again for a job well done."

BLACK HISTORY MONTH

Each year the month of February has been designated as Black History Month. Secretary Bergland encouraged all employees in the Department to use this occasion to recognize the significant achievements and contributions of Blacks to America's growth and development. Many of you viewed the exhibits which were on display in the lobby of Building 003 in February. You may not, however, be aware of a permanent exhibit on the Third Floor of the Bioscience Building (Building 011A, BARC-West). The Mycology Laboratory has a display entitled "Leaders in American Mycology." Notable among these leaders was Dr. George W. Carver, the famous botanist, chemurgist, and bacteriologist, from Tuskegee. Dr. Carver began his collaboration with USDA in the late 1920's. The exhibit also recognizes the contributions of the staff at Howard University. You can find this exhibit near the elevator on the Third Floor, Building 011A.

EMPLOYEE ACTIVITIES

Muriel J. O'Brien, Germplasm Resources Laboratory, PGGI, presented an invited paper entitled "Recent Trends in Late Blight Forecasting," at an International Seminar on "Approaches Toward Increasing Potato Production in Developing Countries." The Seminar, organized by the Indian Potato Association and the staff of the Central Potato Research Institute, Simla, was held in Jullundur, India, November 19-23. After the Seminar, Miss O'Brien visited research institutions in New Delhi, Hyderabad (ICRISAT), Bangalore, and Mysore. With staff members at the various research institutions, she visited the disease evaluation and genetic improvement plots, and participated in discussions on wilt diseases of vegetables and pulses, grain molds, seedborne diseases, downy mildew, and stalk rots.

EMPLOYEE ACTIVITIES (Continued)

Lowell E. Campbell, Agricultural Equipment Laboratory, PPHI, served as cochairman of a forum entitled "Is Energy Conservation Compatible with Greenhouse Operation," at the January 31 meeting of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, held at Philadelphia, Pennsylvania.

Charles D. Foy, Plant Stress Laboratory, PPHI, presented an invitational paper entitled "Adaptation of Crops to Acid Subsoil Conditions," at a USDA-SEA Workshop on "Soil-Nutrient-Water Management for Cropping Systems in the Southeast," held at Atlanta, Georgia, February 13-15. Dr. Foy also served on a panel to develop research priorities regarding soil acidity--"Nutrient Interrelationships in Southeastern Soils."

COOPERATIVE ACTIVITIES

Henry J. Retzer, Agricultural Equipment Laboratory, PPHI, with George Ayers and A. J. Howlett of Michigan State University, Department of Entomology, determined performance characteristics of a recently developed orchard sprayer which is expected to have immediate commercial applications.

Cooperative research of four laboratories in AEQI and PPI resulted in discovery of a new feeding deterrent for house flies. The new anti-feedant, a triterpenoid identified as salannin, was isolated from seed of the neem tree of India. Neem extracts have been used as a source of insect antifeedants and growth regulators for over a decade in India. Cooperators in the study include: J. David Warthen, Jr. and Edward C. Uebel, Biologically Active Natural Products Laboratory, AEQI; Samson R. Dutky, Insect Physiology Laboratory, PPI; William R. Lusby, Pesticide Degradation Laboratory, AEQI; and Harold Finegold, Analytical Chemistry Laboratory, AEQI. Neem seeds were obtained from India by the International Programs Division. The results were published in ARR-NE-2.

The Vegetable Laboratory, PGGI, has received word that a major vegetable processor has developed an anthracnose-tolerant tomato variety with resistance derived from P.I. 272636. Resistance in this introduction was found by Thomas H. Barksdale. The variety has been grown commercially for the past 2 years.

DEATH OF RETIRED BARC SCIENTIST

William N. Sullivan, retired scientist with the Chemical and Biophysical Control Laboratory, AEQI, passed away on March 2. Dr. Sullivan was a well known and respected Research Entomologist in the aircraft disinsection field. He was the coinventor of the aerosol bomb, and during the 4 years before his retirement in June of 1978, he was involved in the development and evaluation of new propellant systems which would not damage the ozone layer. During his career, he published more than 150 scientific papers. He had been an employee of the U.S. Department of Agriculture since 1931.

HONORS AND AWARDS

Honor:

Robert L. Almond, Sr., Head, Division of Operations, and Dominick J. Milano, Chief, Engineering and Planning Branch, have been approved and certified by the American Institute of Plant Engineers Certification Board as having met the requirements for the professional status of "Certified Plant Engineer." The certification program provides a standard of professional competency in the practice of plant engineering. It identifies and recognizes those individuals whose backgrounds meet requirements of experience, responsibility, conduct, academic achievement, and/or passing a prescribed examination. Messrs. Almond and Milano are two of the three known persons in USDA, SEA, to receive this honor--the other being John R. Kennedy of the National Animal Disease Center, Ames, Iowa.

Cash Award:

Alston, Wiley J., Farm Management Branch, Division of Operations.
Billhimer, John A., Poultry Protozoan Diseases Laboratory, API.
Burke, Leone M., Animal Improvement Programs Laboratory, ASI.
Byler, James L., Poultry Protozoan Diseases Laboratory, API.
Delpy, Alma C., Plant Materials Research, Glenn Dale.
Galyon, Roy C., Swine Unit, Animal Operations.
Johnson, Herbert L., Beef/Sheep Unit, Animal Operations.
Kelley, Emory O., Plant Materials Research, Glenn Dale.

Quality Within-Grade Increase:

DeLashmutter, Jane L., Water Data Laboratory, PPHI.
Hebron, Phillip F., Field Crops Laboratory, PGGI.
Jaffe, Howard, Chemical and Biophysical Control Laboratory, AEQI.
Pea, Roy Nelson, Germplasm Resources Laboratory, PGGI.

Special Award:

B. Hunt Ashby and William A. Bailey, Transportation and Packaging Research Laboratory, AMRI, recently shared the Animal Air Transport Association's first annual research award for leading to improved safety, economy, and efficiency in transportation of animals by air. The award, presented at the Association's Fourth Annual Meeting in Toronto, Canada, consisted of a cash stipend to each researcher and was given in an effort to stimulate research involving air transportation of animals.

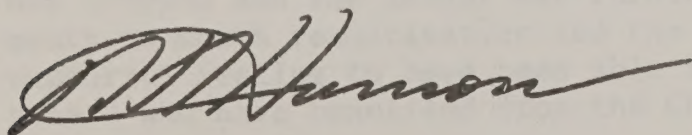
VISITORS

California--Mr. Skip Stiles and Dr. Bernabo, from the office of Congressman Brown of California, toured segments of the Agricultural Environmental Quality Institute, on February 12, to review elements of research relating to the interaction of agriculture and the environment. The research reviewed included subjects they selected from a larger listing offered during the initial telephone request for the tour. Subjects and lead scientists were: terrestrial and aquatic ecosystems for pesticide research (Philip C. Kearney); soil nitrogen research (George Stanford); air sampling of pesticides and pheromones under field conditions (Joseph H. Caro); sludge composting and related research with visit to the composting site (James F. Parr, Jr.); pilot test program on use of face fly traps and aircraft disinsection (Dora K. Hayes); and development and registration of insect pheromones (Jack R. Plimmer). James L. Hilton, Chairman of the Institute, accompanied the visitors on their tour. They also visited Howard E. Heggstad, Plant Stress Laboratory, PPHI, to review his research on effects of air pollutants on crop plants.

Greece--On February 16, Dr. S. Kosmidou-Dimitripoulou, cotton physiologist with the Hellenic Cotton Board, Athens, Greece, visited with the staff of the Plant Physiology Institute, including the Cell Culture and Nitrogen Fixation Laboratory, Plant Hormone and Regulators Laboratory, and the Plant Stress Laboratory. Dr. Kosmidou has been in the United States for approximately 3 months and has visited selected cotton physiology laboratories and cooperated in short-term research projects. Her visit to BARC provided information concerning ongoing physiology research and instrumentation available for physiological investigations.

People's Republic of China--The American Seed Trade Association arranged for a 12-member Chinese delegation to visit BARC on February 23. They were greeted by A. A. Hanson, Director, and then met with members of the Plant Genetics and Germplasm Institute (John G. Moseman, George A. White, Wayne M. Porter, and P. Stephen Baenziger). Following lunch, they met with two members of the Agricultural Marketing Research Institute (Karl H. Norris and Aref A. Abdul-Baki), and two members of the Plant Physiology Institute (Meryl N. Christiansen and Gerald E. Carlson).

Portugal--Professor Pedro Amaro, Instituto Superior de Agronomia, Lisbon, and Mr. Carlos Amaral, Director, Instituto Nacional de Investigacao Agraria, visited BARC on February 26. They met with Frank Porter and Warren P. Moss in the Northeastern Regional Office, and then met with A. A. Hanson, Director, BARC, followed by a tour of the Center by the BARC Visitor Unit.



A. A. Hanson, Director
Beltsville Agricultural Research Center

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NOTES FROM THE DIRECTOR

No. 110

April 26, 1979

LABORATORY NAME CHANGES

Effective April 22, 1979, the Agricultural Environmental Quality Institute will disband the Biological Evaluation of Chemicals; Chemical and Biophysical Control; and Insect Chemosterilants Laboratories. These laboratories will be replaced by the Insect Reproduction Laboratory (Alexej B. Borkovec, Chief); and the Livestock Insects Laboratory (Dora K. Hayes, Chief).

GERMPLASM RELEASES

The Fruit Laboratory, PGGI, announces the release of a new strawberry cultivar--SCOTT--named for Dr. Donald H. Scott, former head of Small Fruit Investigations of the USDA and distinguished strawberry breeder.

The Florist and Nursery Crops Laboratory, PGGI, announces the release of a new seedling cultivar of poinsettia--WINTER SUNSHINE. It is from the 10th generation of crosses between unnamed seedlings descended from "Ecke White," "Oakleaf," and a genetic pink seedling collected in Mexico.

OUTSTANDING ACCEPTANCE FOR NEW POTATO VARIETY

BelRus, a russet potato variety developed at BARC and evaluated and released jointly with several States, is rapidly gaining popularity in the Eastern United States, particularly in Maine. Acreage planted to BelRus is limited by the available seed supply. Industry anticipates that BelRus will largely replace the Russet Burbank variety in the Northeast by 1980. At the request of industry, BelRus has been licensed for production in Canada, particularly in New Brunswick and Prince Edward Island.

REWARDS FROM CARDIOPULMONARY RESUSCITATION (CPR)

George F. Shaffer, Animal Caretaker Foreman, API, recently applied the training he received from a CPR course offered by SEA-AR. His neighbor rushed her choking, 7-month-old infant to him for help. Since breathing had stopped and the infant was turning blue, George immediately gave mouth-to-mouth resuscitation and the child revived. He said it was a wonderful feeling to have been able to save a life. No doubt there are others who have benefited from the CPR training received at BARC.

SEA ART CONTEST

Keenan Rew, son of Dr. and Mrs. Robert S. Rew, Animal Parasitology Institute, won first prize in the SEA Art Contest for the 6-8 year old division with a picture entitled "Sheep Doctor." His drawing is being displayed in the USDA South Building, Washington, D.C. The drawing will be entered in the USDA overall competition. An awards ceremony for the SEA winners was scheduled for April 24. Subsequently, the drawings will be displayed by the Extension Service throughout the United States.

BARC CONFERENCE ROOMS

Following the use of BARC Conference Rooms, it would be appreciated if a quick cleanup could be performed by the scheduling group to prepare the room for the next meeting. This would involve emptying ashtrays, removing empty coffee cups or soft drink containers, and returning the chairs to their original positions.

HONORS AND AWARDS

Honor:

Mary Lou Cooley, Systematic Entomology Laboratory, IIBIII, has been selected to receive the Ralph J. Klein Scholar Award for 1979. The Award was established in honor of Dr. Klein, who was a respected faculty member and administrator for University College, University of Maryland, College Park, Maryland. The preliminary criteria for choosing Klein Scholars include: (1) the student must have earned at least 30 semester hours, (2) be in degree-seeking status, and (3) have at least a 3.0 grade point average. More significant--because the Kleins have an interest in promoting scholarship in the field of art--preference is given to students whose primary concentration is art or art history.

Cash Award:

Luke, Harriet M., Engineering and Planning Branch, Division of Operations.
Roth, Victor J., Farm Management Branch, Division of Operations.

Quality Within-Grade Increase:

Humphrey, Jesse L., Ruminant Nutrition Laboratory, ASI.
O'Driscoll, Terence K., Photographic Services, Director's Office.
Rogers, Charles W., Applied Plant Pathology Laboratory, PPI.

APPRECIATION

Shirley J. Edwards, Supervisor, Index-Catalogue of Medical and Veterinary Zoology, API, recently received a letter of thanks from the University of Papua New Guinea, which reads, in part, as follows:

APPRECIATION (Continued)

"Thank you for your letter of 2 February with its excellent news that the Animal Parasitology Institute is willing to donate a set of the INDEX CATALOGUE OF MEDICAL AND VETERINARY ZOOLOGY. It will be an invaluable tool for the faculty both of medicine and agriculture. I hope that you will accept our hearty thanks and convey our appreciation to your colleagues at the Institute."

* * * *

We are pleased to congratulate the following for the assistance they gave to students from Eleanor Roosevelt High School in observing laboratory procedures and in gathering information for writing their science projects:

Neal O. Morgan and James F. Parr, Jr., AEQI; Harold E. Moline and Wilson L. Smith, AMRI; Robert G. Leek, API; Lowell T. Frobish and Theron S. Rumsey, ASI; H. Marc Cathey, Thomas C. Elden, Harold W. Fogle, Kenneth G. Lenhert, James A. Saunders, Robert L. Taylor, and Tien C. Tso, PGGI; Howard W. Bennett, John C. Brown, James A. Bunce, Joseph G. Buta, Gerald E. Carlson, Thomas E. Devine, Charles D. Foy, Howard E. Heggstad, L. David Kuykendall, Werner J. Meudt, Charles Sloger, Freeman W. Snyder, and Susan E. Wells, PPHI; Robert D. Lumsden, Hachiro Shimanuki, and James A. Svoboda, PPI; and Gordon T. Carpenter, Visitor Unit.

BELATED EXPRESSION OF APPRECIATION

The names of the following employees should have been included among those who assisted in protecting experimental materials during the February snowstorm. We appreciate the efforts of these employees and those who were recognized earlier:

Monday, February 19

UTILITIES AND SERVICES BRANCH, DIVISION OF OPERATIONS:

Security Section - Alphonzo Perry, Charles Pheeney, Ronald Quick, Delmar Robertson, Lee Warren.

Automotive Shop - Robert Lee.

Heating Plant - William Beverly, Frederick Blackstone, William Cockran, Bernard Gast, Leonard Matthews, Russell Ridley, Dawud Sharrieff, Everett Talbott.

Tuesday, February 20

UTILITIES AND SERVICES BRANCH, DIVISION OF OPERATIONS:

Security Section - James Harris, Alphonso Harrison, Bennie Hines, Carlton Kinard, Alphonzo Perry, Ronald Quick, Delmar Robertson, Lee Warren.

BELATED EXPRESSION OF APPRECIATION - Tuesday, February 20 (Continued)

Automotive Shop - Robert Lee.

Heating Plant - William Beverly, Frederick Blackstone, William Cockran, Melvin Contee, Roger Fenwick, Leonard Matthews, John McAfee, Russell Ridley, Dawud Sharrieff, Everett Talbott, Stephen Teles, Gary Wilson, Allen Winterwerp

INSECT IDENTIFICATION AND BENEFICIAL INSECT INTRODUCTION INSTITUTE:
Suzanne W. T. Batra.

PLANT PROTECTION INSTITUTE: Jean R. Adams, Theodor O. Diener, James L. Vaughn.

NEW EMPLOYEES

Robert A. Werner, who obtained a master's degree in Horticulture-Plant Pathology from North Carolina State University in 1978, has recently joined the Soilborne Diseases Laboratory, PPI, for 1 year. Mr. Werner and other staff members will investigate two areas of research involving the small farms research project; namely, the effect of sludge compost on several soilborne diseases of economic crops, and the effect of selected biological and chemical control components on fruit rots of cucumbers.

Edward A. Barnett recently joined the Soilborne Diseases Laboratory, PPI, for a 1-year study of the nutrition of mycoparasites affecting sclerotial plant pathogens. This research is supported by a SEA Competitive Grant. Dr. Barnett holds a Ph. D. degree in Microbiology from the University of West Virginia.

RETIREMENTS

John T. Worthington, III, Research Horticulturist, retired on February 9 with 32 years' Federal service. John's career with the USDA started in June 1949, in the Handling, Transportation, and Storage Section, Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering. Numerous organizational changes have occurred over the years but all of his service has been at BARC-West (formerly known as the Plant Industry Station) working in postharvest horticulture. At the time of his retirement, John was associated with the Horticultural Crops Marketing Laboratory, AMRI. He liked to work on practical problems of direct interest to industry. John claims to be too young to "retire" and has many plans for new activities.

RETIREMENTS (Continued)

Wilson L. Smith, Research Plant Pathologist, retired on February 14 after over 32 years' service with the USDA. His career began in 1941, during World War II, at the Rubber Plant Investigation Station, Savannah, Georgia, where he worked on production of goldenrod as a possible source of rubber. In 1948, after graduate school, he came to Beltsville to work in post-harvest pathology of fruits and vegetables. His remaining time with USDA has been with the Horticultural Crops Marketing Laboratory, AMRI, and its predecessors to the 1972 reorganization. He is best known for his research on heat treatments (hot water) to control decay of harvested fruit. Dr. Wilson and his wife, Dorothy, plan to spend their retirement in a home they are having built at Bluffton, South Carolina.

EMPLOYEE ACTIVITIES

Sharon B. Hornick, Biological Waste Management and Organic Resources Laboratory, AEQI, has accepted a 3-year appointment on the editorial board of the Journal of Environmental Quality of the American Society of Agronomy. Dr. Hornick's term will begin January 1, 1980. She will serve as an associate editor with special competence in heavy metals and organic wastes.

Martin Jacobson, Chief, Biologically Active Natural Products Laboratory (BANPL), AEQI, chaired an all-day Symposium on Insect Feeding Deterrents, which he organized at the invitation of the program chairman for the American Chemical Society's 13th Middle Atlantic Regional Meeting, held March 20-23, at Monmouth College, West Long Branch, New Jersey. He also presented a paper entitled "Feeding Deterrents for the Boll Weevil in Tung Oil" describing research conducted jointly with Maxwell M. Crystal, Biological Evaluation of Chemicals Laboratory, AEQI. J. David Warthen, Jr., BANPL, presented a paper entitled "Azadirachta indica: A Source of Insect Feeding Deterrents."

Thomas E. Devine, Cell Culture and Nitrogen Fixation Laboratory, PPHI, has been elected to a 3-year term on the six-member International Soybean Genetics Committee. The committee exercises review of manuscripts concerning qualitative genetic interpretation, and approves assignment of genetic symbols when validity is adjudged established. The committee establishes rules for use of genetic symbols and exercises overview of the Soybean Genetic Type Collection (Mendelian and cytoplasmic factors), the Linkage Collection, the Isoline Collection, and the Cytological Collection (including translocations, inversions, deficiencies, trisomics, tetraploids, etc). The committee provides guidance on computerization of germplasm descriptions and provides resource information for the National Plant Genetics Resource Board.

Thomas E. Devine, Cell Culture and Nitrogen Fixation Laboratory, PPHI, attended the Plant Breeding Symposium II at Iowa State University, Ames, Iowa, March 10-16. The first Plant Breeding Symposium was held 15 years ago at the same location.

VISITORS

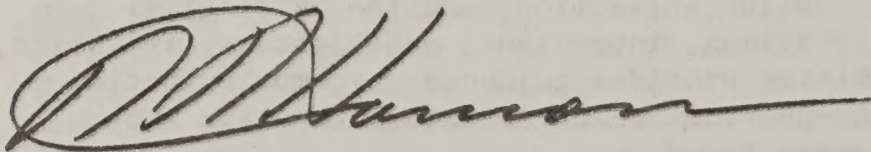
District of Columbia--Paul Beattie, Mike Canon, Philip Eastman, and Francis O'Sullivan, USDA's Food Safety and Quality Service, Fresh Products Standardization Branch, Washington, D.C., visited members of the Horticultural Crops Marketing Laboratory, AMRI, on March 27. Their visit included a tour of facilities and a discussion of areas of possible cooperation in establishment of guidelines for quality standards implemented by their fresh fruit and vegetable market inspectors.

District of Columbia--Dr. Frank L. Campbell, former Executive Secretary, Division of Biology and Agriculture, National Research Council, National Academy of Sciences, visited the Insect Identification and Beneficial Insect Introduction Institute (IIBIII), on March 14. Dr. Campbell discussed a variety of subjects with Lloyd V. Knutson, Chairman of IIBIII, Ronald W. Hodges and Douglass R. Miller; and Richard L. Ridgway, NPS, especially support for national activities in systematics.

Egypt--Dr. I. K. A. Ibrahim, Professor of Plant Pathology, Faculty of Agriculture, Alexandria University, Egypt, visited the Nematology Laboratory, PPI, March 5-7. He is principal investigator of a PL-480 Project on species and races of root-knot nematodes on major economic crops in northern Egypt, and reviewed the project in depth with A. Morgan Golden, the cooperating scientist. Dr. Ibrahim presented a highly interesting and informative seminar, "Nematology Problems and Research in Egypt." He will visit several Federal and State nematology laboratories in various parts of the U.S. before returning to Egypt in early April.

Italy--On Wednesday, April 11, a 15-member Agriculture Committee Delegation representing the Italian Chamber of Deputies, visited BARC and were greeted by A. A. Hanson, Director. The BARC program and operations were discussed, followed by a tour of the Center by the Visitor Unit.

Nigeria--Dr. T. Ajibola Taylor, Director of the Institute of Agricultural Research and Training, University of Ife, Nigeria, visited BARC on March 7. Following a greeting by A. A. Hanson, Director, Dr. Taylor visited with three Institute Chairmen, J. G. Moseman (PGGI), H. R. Carns (PPhi), and L. V. Knutson (IIBIII); and D. E. Bryan, NPS.



A. A. Hanson, Director
Beltsville Agricultural Research Center

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 111

May 29, 1979

DIRECTOR RECEIVES DISTINGUISHED SERVICE AWARD

Angus A. Hanson, Director of the Beltsville Agricultural Research Center, was given the Distinguished Service Award by Secretary Bergland, on May 23, 1979, during the 33rd Annual Honor Awards Ceremony which was held in Washington, D.C. Dr. Hanson, who has served as the Center Director since 1972, was cited for his dedicated leadership and innovative administration which have elevated the Center to new heights of prestige and accomplishment in scientific research. The day after the Awards Ceremony, over 300 coworkers and colleagues visited the Director's Office to extend their greetings and congratulations to Dr. Hanson for this honor.

INSECT CHEMOSTERILANTS TEAM RECOGNIZED

A research team of five chemists from Beltsville received the USDA's Superior Service Award during ceremonies in Washington, D.C., on May 23. The Award was given to the Insect Chemosterilants Unit, AEQI, for pioneering research which resulted in the discovery and development of chemicals used to interfere with insect reproduction. The team also developed techniques for the practical application of these chemicals. Members of the team are: Alexej B. Borkovec, research leader; Shen Chin Chang; Albert B. DeMilo; Paul H. Terry; and Charles W. Woods. Dr. Borkovec accepted the Award from Secretary Bergland, on behalf of the team.

GERMPLASM RELEASE

The Plant Genetics and Germplasm Institute announces the release of Beltsville-6, a vigorous-growing, semidormant alfalfa with resistance to the pea aphid, Fusarium wilt, and to the commonly occurring strains of anthracnose. This germplasm will be useful to alfalfa breeders as a more northerly adapted source of disease- and insect-resistant alfalfa derived solely from populations with the characteristic high vigor of nondormant alfalfa. Breeders may wish to impose additional selection or hybridize with other alfalfa strains to adapt the germplasm to a specific environment.

WATER USE POLICY AT BARC

As a rule, water furnished by the Washington Suburban Sanitary Commission will not be used for irrigation purposes. Fire hydrants may be used as a water source only with the concurrence of the Chief, Farm Management Branch (FMB), (Vic Miller, Ext. 42448). As in the past, water from the Big and Little Paint Branch should be used for irrigation whenever possible. Persons other than Division of Operations employees observed obtaining water from hydrants will be requested to stop the flow immediately and contact the Chief, FMB, or the Head of the Division of Operations, Ext. 42253.

NOTES FROM THE BARC-EEO COMMITTEE

In response to concerns expressed by employees, the Director's Office will remind supervisors to discuss position management charts with their employees. Furthermore, all employees within laboratories will be invited to the next series of laboratory reviews. Time will be made available to consider position management.

A special half-day training session on the function of an EEO Advisory Committee has been arranged for June 25, 1979. Mr. Louis Hall, EEO Coordinator, National Cancer Institute, will be responsible for the program.

Minutes of BARC-EEO Committee meetings should be circulated to all employees.

HONORS AND AWARDS

Cash Award:

Avery, Crawford L., Poultry Unit, Animal Operations.

Sauls, John N., Milk Secretion and Mastitis Laboratory, ASI.

Shipley, Wilbur E., Maintenance and Construction Branch, Division of Operations.

Warden, Joseph W., Maintenance and Construction Branch, Division of Operations.

Quality Within-Grade Increase:

DeVilbiss, Everett D., Organic Chemical Synthesis Laboratory, AEQI.

Huneycutt, Sharon, Ruminant Helminthic Diseases Laboratory, API.

Pilitt, Dana R., Florist and Nursery Crops Laboratory, PGGI.

Pursel, Kathryn, Poultry Protozoan Diseases Laboratory, API. (Recognition received for secretarial duties in the Reproduction Laboratory, ASI.)

SEA WINNERS IN THE "INTERNATIONAL YEAR-OF-THE-CHILD ART CONTEST"

Preschool:

- 1st Place - *Jeanne Howell, age 5, daughter of T. A. Howell, Communications and Data Services Division, AM, Beltsville.
- 2nd Place - Christy Gabbert, age 4, daughter of Christine Gabbert, Headquarters Operations Division, AM, Beltsville.
- 3rd Place - Karen Baca, age 5, daughter of Art Baca, NER, Beltsville.
- Honorable Mention - Scott Adams, age 5, son of Judy Adams, Animal Operations Unit, Office of the Director, BARC.

Age 6-8:

- 1st Place - *Keenan Rew, age 8, son of Robert S. Rew, API, BARC.
- 2nd Place - Alison Dixon, age 7, daughter of Susan Dixon, NER, Beltsville.
- 3rd Place - Mike Howell, age 8, brother of Jeanne Howell, winner in the Preschool section.
- Honorable mention - Ashia Miller, age 6, daughter of Leah Miller, Food and Nutrition Information Center, NAL, Beltsville.

Age 9-12:

- 1st Place - **Carter Hill, age 10, son of Kenneth R. Hill, AEQI, BARC.
- 2nd Place - Cynthia Enuton, age 12, daughter of Cathleen Enuton, NER, Beltsville.
- 3rd Place - Danny Hammerschlag, age 10, son of Freddi Hammerschlag, PPHI, BARC.
- Honorable mention - Robin Dickman, age 9, daughter of Dara Lee Dickman, NER, Beltsville.

Age 13-18:

- 1st Place - *Karen Rizek, age 15, daughter of Robert L. Rizek, Consumer and Food Economics Institute, Human Nutrition Center, Hyattsville.
- 2nd Place - Brian McGuire, age 16, son of Sanford McGuire, ASI, BARC.
- 3rd Place - Wayne Bodnar, age 13, son of Imogene Bodnar, Plant Sciences Group, Cooperative Research, Washington.

*Also won first place in the Department-level contest.

**Honorable mention in the Department-level contest.

USDA prize winners received savings bonds. SEA prize winners will receive T-shirts printed with the logo of the International Year-of-the-Child. All children who placed in the contest will receive Certificates of Merit and all children who entered the contest will receive Certificates of Achievement and an IYC button.

The award ceremony was held on April 24 on the patio of the Administration Building. Secretary Bergland announced the USDA winners and Dr. Nielson announced the SEA winners for Dr. Bertrand. SEA-Extension is sending the art entries on tour throughout the country so that people in a number of States will be able to enjoy the children's art.

POSTDOCTORAL FELLOW

Amnon Freidberg, Tel Aviv University, Israel, has been awarded a Smithsonian postdoctoral fellowship to study the systematics of fruit flies and several other fly families during the next 12 months. He is working closely with Richard H. Foote and George C. Steyskal, Systematic Entomology Laboratory, IIBIII, and Lloyd V. Knutson, Chief, Insect Identification and Beneficial Insect Introduction Institute.

COOPERATIVE ACTIVITIES

The Maryland Center for the Study of Systematic Entomology was established last fall by the Department of Entomology, University of Maryland. The primary purpose of this program is to allow graduate students interested in systematics of insects an opportunity to utilize the National Collection of Insects and the skills and knowledge of the nearly 50 systematists in this area--most of whom are from the Systematic Entomology Laboratory (SEL), IIBIII. Currently, there are two students working with SEL scientists: Mike Schauff (studying a group of parasitic wasps with E. Eric Grissell), and Scott Shaw (studying another group of parasitic wasps with Paul M. Marsh).

Recently, the International Communications Agency taped a television program showing face fly rearing procedures and a sticky pyramid trap which are being researched in the Livestock Insects Laboratory (LIL), AEQI. Lawrence G. Pickens, LIL, narrated the film which will soon be telecast to Third World nations.

EMPLOYEE ACTIVITIES

Howard E. Heggstad, Plant Stress Laboratory, PPHI, participated in the 11th Annual Air Pollution Workshop held May 1-3 at Sudbury, Ontario, Canada. He was leader of a discussion session on the mechanics of resistance to air pollution. Sudbury is the site of a large nickel and copper ore smelting operation which has destroyed thousands of square miles of vegetation. Air quality at the site has improved in the past decade.

Joan L. Alexander, Livestock Insects Laboratory, AEQI, was invited by the Insect Zoo Staff, Smithsonian Institution, and the Director of the Natural Museum of Natural History, to attend the opening of a new exhibit hall, DYNAMICS OF EVOLUTION, May 17, 1979. Ms. Alexander provided 70,000 German cockroaches, many of which were used in a display of insects invading a modern kitchen. Currently, she maintains German and oriental cockroaches for insecticide evaluations and more than a dozen other species for natural history studies and exhibits. Her cockroach zoo is popular with visitors to BARC.

EMPLOYEE ACTIVITIES (Continued)

On May 16, Charles E. Bare, Weed Science Laboratory, AEQI, spoke to two biology classes at the Annapolis Junior High School concerning his profession as a plant physiologist and his work with photosynthesis and plant metabolism at BARC.

Ronald Fayer, Livestock Protozoan Diseases Laboratory, API, has been invited to the Toronto Medical Center, Tulane Medical Center, and the Louisiana State University School of Veterinary Medicine, to talk on the subject of Sarcocystis and other related organisms.

Frank W. Douvres, Ruminant Helminthic Diseases Laboratory, API, presented a seminar on his work on in vitro cultivation of nematode parasites of ruminants, on May 10, at the Department of Veterinary Science, University of Wisconsin, at the request of Professor A. C. Todd of that Department.

Robert D. Gordon, Systematic Entomology Laboratory, IIBIII, and Robert F. W. Schroder, Beneficial Insect Introduction Laboratory, IIBIII, spent several weeks in southern Peru during January and February collecting parasites of the Mexican bean beetle and Diabrotica beetles for possible introduction into the United States. This is a cooperative program with the University of Maryland's Department of Entomology. Several hundred nematode parasites of Diabrotica and tachinid fly parasites of the Mexican bean beetle were collected and brought back to the USDA quarantine facilities in Newark, Delaware. The fly parasites have been reared through the second generation with good prospects of establishing a colony in the laboratory for further study. Dr. Gordon spent an additional 3 weeks in southern Chile collecting beetle predators of aphids and scale insects.

Donald T. Krizek, Plant Stress Laboratory, PPHI, recently participated in the Controlled Environments Working Conference held at the University of Wisconsin, on March 12-14. This conference was sponsored by the USDA, SEA, North Central Region (NCR) -101 Committee on Growth Chamber Use. Cosponsors included the American Society for Horticultural Science Working Group on Controlled Environments and Growth Chambers; the American Society of Agricultural Engineers SE-303 Committee on Environment of Plant Structures; and the Biotron, University of Wisconsin. The conference was divided into two sessions. Session I dealt with requirements for controlling and measuring critical environmental factors in controlled environment studies. Session II covered NCR-101 guidelines for making various environmental measurements and for reporting these data in scientific journals. Dr. Krizek is presently serving as SEA, AR, Representative and Vice-Chairman of the NCR-101 Committee on Growth Chamber Use. While at the conference, he presented a paper entitled "Guidelines for Carbon Dioxide Measurement and Reporting." Proceedings of the conference will be edited by T. W. Tibbitts and T. T. Kozlowski, and will be published by Academic Press under the title "Controlled Environment Guidelines for Plant Research." Funding for

EMPLOYEE ACTIVITIES (Continued)

the conference was provided by SEA, CR, the National Science Foundation, the University of Wisconsin Graduate School, the University of Wisconsin College of Agriculture and Life Sciences, and General Mills, Inc. Strong recommendations were made by members of the NCR-101 Committee in support of using SI units as a means of standardizing reporting procedures on an international basis.

Charles D. Foy, Plant Stress Laboratory, PPHI, presented an invitational paper entitled "Crop Adaptation to Mineral Stress in Problem Soils," at the 36th Southern Pasture and Forage Crop Improvement Conference and associated work group meetings, held at BARC, May 1-3. Dr. Foy also made a presentation on "The Physiology of Plant Adaptation to Mineral Stress," at an Ecology-Physiology work group meeting.

Freddi Hammerschlag, Cell Culture and Nitrogen Fixation Laboratory, PPHI, has received her Ph. D. in plant genetics from the University of Maryland. Her thesis was entitled "Studies to Determine the Feasibility of Selecting Geranium Cells for Resistance to Xanthomonas pelargonii." Dr. Hammerschlag's current research includes woody plant tissue culture and selection of cells for resistance to plant pathogens.

On April 24 and 25, Donald T. Krizek, Plant Stress Laboratory, PPHI, presented seminars at the Department of Floriculture and Ornamental Horticulture, Cornell University, on "Limiting Factors in Controlled Environments," and "Plant Response to UV Radiation." While at Cornell, Dr. Krizek visited the new facilities of the Boyce Thompson Institute for Plant Research, and attended the dedication symposium on "Linking Basic Research to Crop Improvement Programs in Less-Developed Countries." Topics covered at the symposium included biological nitrogen fixation, biomass production, plant stress, crop improvement, and biological control of insects.

The seventh Eastern Research Conference on "Ecology of Root Infecting Microorganisms," recently held at Madison, Wisconsin, was attended by Jack A. Lewis, Robert D. Lumsden, and James C. Locke, Soilborne Diseases Laboratory, PPI. All three scientists presented research papers based upon programs in the laboratory to control soilborne diseases of economic crops by biological and cultural methods.

VISITORS

Australia--Dr. Leo LeJamber, CSIRO, Armidale, Australia, met with Ronald Fayer, Harry Herlich, Robert Knight, Robert Rew, and Frank Tromba, of the Animal Parasitology Institute, during his stay here on April 23-24.

VISITORS (Continued)

Hungary--Dr. Sandor Hodosy, Plant Pathologist, an FAO Fellow, visited the Vegetable Laboratory, PGGI, for 4 weeks during April/May. He studied diseases of the tomato with Thomas H. Barksdale, and diseases of asparagus, potatoes, and sweet corn with Robert W. Roth. Dr. Sandor Hodosy will return to BARC for 4 weeks in August/September to do additional work with the Vegetable Laboratory.

Netherlands--Dr. A. C. Posthumus, Head, Department for Research on the Influence of Air Pollution on Plants, Research Institute for Plant Protection, Wageningen, the Netherlands, visited Howard E. Heggstad, Jesse H. Bennett, and Edward H. Lee, in the Plant Stress Laboratory, PPHI, on May 17. Air pollution problems on vegetation in the Netherlands are very similar to those in this country.

People's Republic of China--A group of scientists representing the Scientific and Technical Association of the People's Republic of China visited BARC on May 16. They were greeted by Paul A. Putnam, Acting Director, and then met with George L. Steffens, Plant Hormone and Regulators Laboratory, PPHI; George A. White, Germplasm Resources Laboratory, PGGI; Henry F. Tyrrell, Ruminant Nutrition Laboratory, ASI; and Joseph Judd, Lipid Nutrition Laboratory, Nutrition Institute, Human Nutrition Center. The visitors expressed an interest in having Chinese scientists work with the Beltsville group.

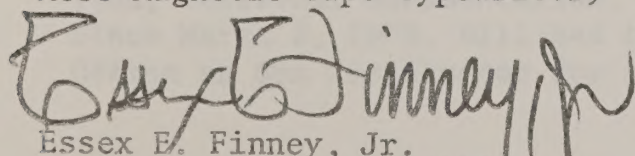
People's Republic of China--Twelve experts on spawn and mushroom production visited with the mushroom research group, Vegetable Laboratory, PGGI, on May 1, and looked over the newly renovated mushroom growing facility.

Romania--Dr. Toader Echim, Plant Breeder, an FAO Fellow, is visiting the Vegetable Laboratory, PGGI, with an itinerary similar to that of Dr. Hodosy (Hungary). Dr. Echim is studying tomato breeding methods and materials with Allan K. Stoner.

West Germany--Twenty mushroom growers, representing the Provinzialverband Rheinischer Obst- and Gemuesebauer e.V., visited the Vegetable Laboratory's (PGGI) mushroom research facilities at BARC-W, on March 27.

SURPLUS EQUIPMENT

<u>Item</u>	<u>Condition</u>	<u>Contact</u>	<u>Ext.</u>
Five-drawer file cabinet)			
Card files (3x5) cabinet)			
Card files (4x6) cabinet)	Good	M. Vinton	42431
Card files (5x8) cabinet)			
MTST Magnetic Tape Typewriter)			


 Essex E. Finney, Jr.
 Assistant Director, BARC

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 112

June 29, 1979

FAREWELL

It has been an honor and privilege to serve as your Director for the past 7 years. I have benefited much from the experience of working with and for the outstanding people who are, indeed, the Beltsville Agricultural Research Center.

My recent award was not a credit to me as much as it was a credit to the Center, its employees, and their research. In a similar vein, I received an invitation on June 22, 1979, to be a guest of the USSR at the 50th Anniversary Jubilee Meeting of the V. I. Lenin All-Union Academy of Agricultural Sciences. This invitation reflects very favorably on the work and renown of the Center to which every employee has contributed!

Please accept my thanks for the help and support that you have given to me. I leave knowing that I have attempted to do my best for the Center and Agency, but recognizing that there were many times when my best was not good enough.

CHANGES IN PROGRAM LEADERSHIP

This is to express our thanks to Arthur M. Heimpel, Chief, Insect Pathology Laboratory, and William E. Robbins, Chief, Insect Physiology Laboratory, PPI, who have elected to return to full-time research. Effective July 1, 1979, James L. Vaughn will become Chief, Insect Pathology Laboratory, and James A. Svoboda, Chief, Insect Physiology Laboratory. We are pleased that these important research programs will continue to be directed by outstanding scientists.

DEATH OF BARC SCIENTIST

Herman G. "Bill" Heinemann, Research Hydraulic Engineer, Hydrology Laboratory, PPHI, died of a heart attack on June 23, 1979. Born in Wisner, Nebraska, on September 24, 1920, he graduated from Iowa State University in 1942 with a B.S. degree in civil engineering. Bill was currently on a special assignment to study reservoir-sediment trap-efficiency with the Hydrology Laboratory from Columbia, Missouri, where he was a Laboratory Director and Research Leader. Bill was well known for his research accomplishments in the areas of soil and water conservation, reservoir sedimentation, erosion, and soil-plant nutrient losses. Since March 5, 1979, Bill had been detailed to the Administrator's Office as SEA Coordinator for the Resource Conservation Act.

energy notes



BELTSVILLE RESEARCH CENTER ENERGY COMMITTEE

SEA, U.S.D.A.

JULY, 1979

Coast



... **SAVE
GAS**

HONORS AND AWARDS

Quality Within-Grade Increase:

Shawver, Gusta M., Chairman's Office, ASI.

Thompson, Susan M., Plant Virology Laboratory, PPI.

EMPLOYEE ACTIVITIES

William W. Cantelo, Entomologist, Vegetable Laboratory, PGGI, taped six segments on vegetable insects and controls for "A Better Way," the USDA television program. Individual segments will be shown locally on Channel 4.

Charles D. Foy, Plant Stress Laboratory, PPHI, was an invitational participant in a Plant Bioassay Work Group Conference held by the Department of the Army, Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi, on June 12-14. Objectives of the workshop were: (1) To develop plant bioassay tests to identify both present and potential toxicity problems (metal and others) in dredged or fill materials deposited in flooded or upland fresh water environments; and (2) To bring together available information regarding the bioaccumulation of metals and other contaminants from sewage sludge, fly ash, oil refinery wastes, sediments, and dredged material. Dr. Foy made a 40-minute formal presentation entitled "Adapting Plants to Mineral Stress in Problem Soils," and served as a consultant during 2 days of additional discussions.

Kenneth L. Kuttler, Livestock Protozoan Diseases Laboratory, API, attended the International Conference on Malaria and Babesiosis, in Mexico City, April 30 - May 3, where he presented a review paper on "Chemotherapy of Babesiosis" at the invitation of the organizing committee. The meeting was funded mainly by the U.S. Agency for International Development and the Rockefeller Foundation. Representatives were present from Europe, Asia, Africa, Australia, North America, and South America. The meeting provided a unique blending of experience and talent of both human and veterinary medicine on these two arthropod-transmitted blood protozoal infections. All indications are that safe, nonviable, effective vaccines will be available for both of these infections within the foreseeable future.

Jack R. Plimmer, Organic Chemical Synthesis Laboratory, AEQI, visited India May 8-19 as a member of the U.S. team to participate in an Indo-U.S. Workshop on Degradable Pesticides sponsored by the National Science Foundation and the Indian Department of Scientific and Industrial Research. Dr. Plimmer presented a paper entitled "Degradable Pesticides for Stored Products." The meeting was held at the Industrial Toxicology Research Center, Lucknow.

VISITORS

SENATOR BELLMON (R-OKLAHOMA) VISITS BARC

Senator Henry Bellmon visited BARC on June 15 accompanied by two of his administrative assistants. After a broad-ranging discussion with A. A. Hanson, Director, the group visited research laboratories represented by Gerald E. Carlson, Light and Plant Growth, PPHI; James H. Elgin and Stanley A. Ostazeski, Field Crops, PGGI; Raymon E. Webb, Vegetable, PGGI; Russell L. Steere, Virology, PPI; George C. Papavizas, Soilborne Diseases, PPI; and Henry F. Tyrrell, Ruminant Nutrition, ASI. Senator Bellmon, who is on the Senate Agricultural Appropriations Committee, showed an alert interest in the research programs and expressed a desire to make a followup visit.

VISIT FROM OFFICE OF MANAGEMENT AND BUDGET (OMB)

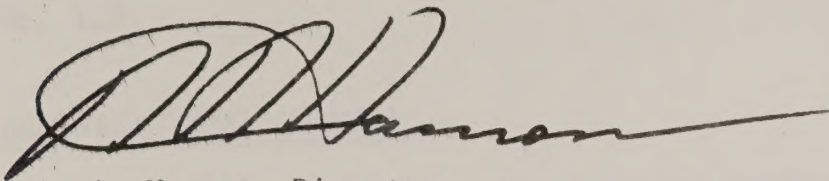
On June 20, representatives from OMB, Donald E. Crabill (Deputy Associate Director for Natural Resources), and Molly Frantz (Budget Examiner) visited Beltsville. The first part of their program included an overview of SEA, AR, and BARC presented by Drs. Bertrand, Kinney, and Hanson. After a brief evaluation on BARC land use, by Paul A. Putnam, they visited Miklos Faust (fruit research), George L. Steffens, (plant hormone and regulators), Russell L. Steere (virology), and Raymon E. Webb (potato research). In the afternoon, the visitors met with James F. Parr, Jr. (sewage sludge research), Katsuto Ono (meat quality research), Howard W. Hawk (animal reproduction research), and Ronald Fayer (animal parasitology research). The laboratory visits were very effective and, because of them, Mr. Crabill and Ms. Frantz should have a much better understanding of agricultural research and the Beltsville Agricultural Research Center. It is hoped that these types of visits will have a positive effect on the budgeting process.

Brazil--A team of five Brazilian scientists, specializing in seed science and technology, visited the Seed Research Laboratory, AMRI, and received a 1-day orientation concerning ongoing research on seeds. The group was accompanied by Ms. Deborah Williams of Mississippi State University.

Spain--Professor Howard Binns spent May 22 at the Animal Parasitology Institute where he presented a seminar entitled "The Role of Wildlife in the Epidemiology of Some African Diseases." Dr. Binns has had over 20 years' experience in Africa, 17 of which were as Director of the East African Veterinary Research Organization (EAVRO), Muguga, Kenya. More recently, Dr. Binns was a Professor of Veterinary Microbiology and Director of the Centre for International Programs, University of Guelph, Canada. Presently, he is retired and residing in southern Spain, but returns annually to Guelph for a series of lectures at the Veterinary College.

VISITORS (Continued)

Yugoslavia--Three Yugoslavian Cabinet members, accompanied by the Agricultural Attache, were greeted by A. A. Hanson, Director, on June 7. They then visited with Paul W. Moe, Chief, Ruminant Nutrition Laboratory, ASI, concerning cattle production efficiency.

A handwritten signature in dark ink, appearing to read 'A. A. Hanson', with a long horizontal flourish extending to the right.

A. A. Hanson, Director
Beltsville Agricultural Research Center

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 113

July 26, 1979

ORGANIZATIONAL CHANGES

Dr. Anson R. Bertrand has approved the establishment of a Horticultural Science Institute, effective July 15, 1979, with Albert A. Piringer, Jr., serving as Chairman. The new Institute includes the following laboratories:

<u>Laboratory</u>	<u>Chief</u>
Florist and Nursery Crops	<u>H. M. Cathey</u>
Fruit	<u>M. Faust</u>
Horticultural Crops Quality	<u>R. E. Hardenburg</u>
Instrumentation Research	<u>K. H. Norris</u>
Postharvest Physiology	<u>M. Lieberman</u>
Vegetable	<u>R. E. Webb</u>

Two laboratories which had been in the Agricultural Marketing Research Institute will be transferred to existing Institutes at the Center. The Meat Science Research Laboratory joins the Animal Science Institute; the Seed Research Laboratory becomes a part of the Plant Genetics and Germplasm Institute. The new Institute Office will be located in Room 130, Building 003, X43338.

* * * *

BARC-WEST CAFETERIA

An "all-you-can-eat" salad bar is now available at the BARC-West cafeteria at the modest price of \$2.16. Included are: potato salad, macaroni salad, coleslaw, lettuce, beets, pickled vegetables, chick-peas, onions, olives, tomatoes, cucumber slices, and your favorite salad dressings. The salad bar is in addition to the daily menu.

* * * *

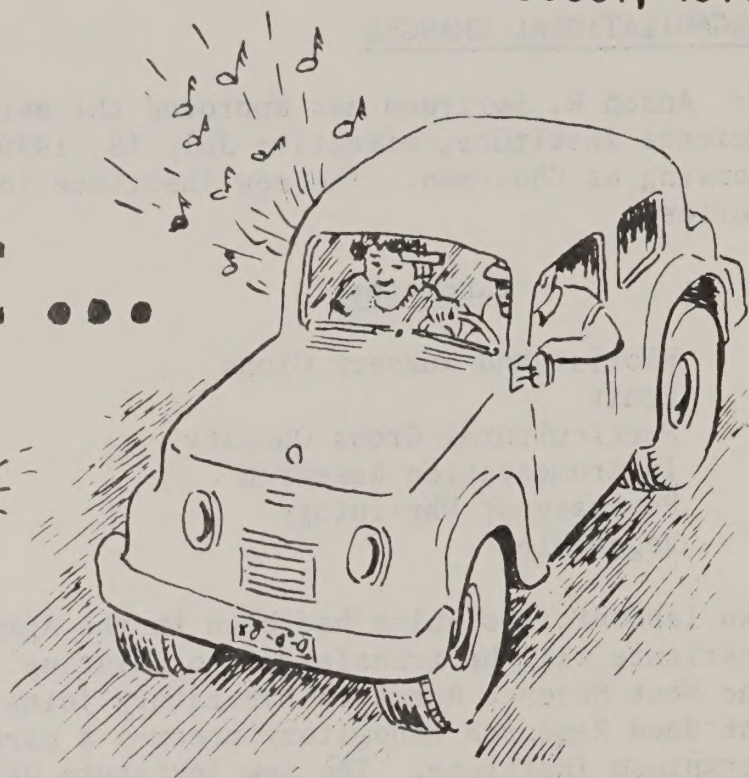
energy notes

BELTSVILLE RESEARCH CENTER ENERGY COMMITTEE

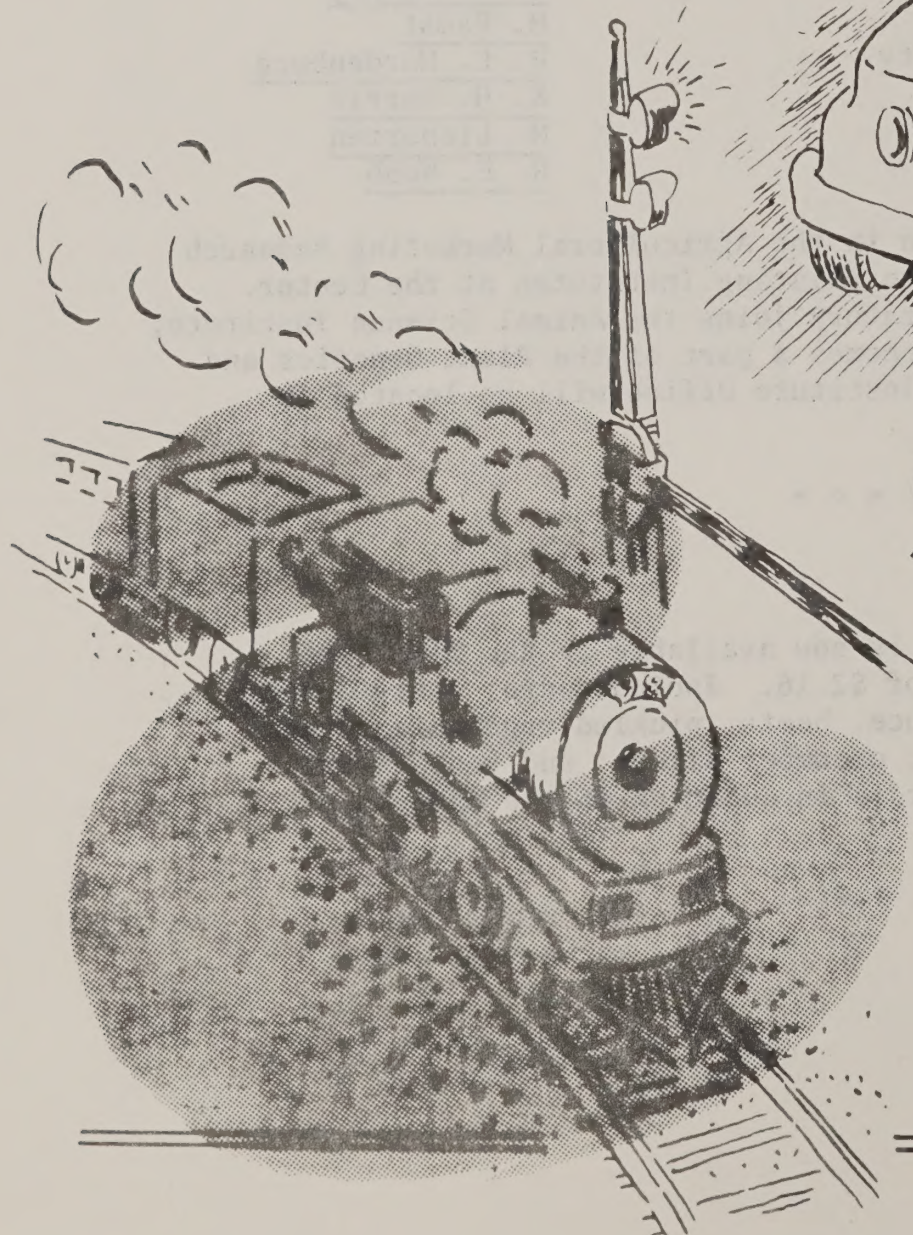
SEA, U.S.D.A.

AUGUST, 1979

STOP ENGINE ...



SAVE GAS



EEO COUNSELORS

Ms. Diane L. Fleck
 Plant Stress Laboratory
 Room 206, Building 001
 BARC-West
 Beltsville, MD 20705
 FTS: 8-344-3143

Ms. Barbara F. Foos
 Office of the Director
 Building 228
 BARC-East
 Beltsville, MD 20705
 FTS: 8-344-2122

Ms. Helen Herlich
 Biometrical and Statistical
 Services Staff
 Room 111, Building 001
 BARC-West
 Beltsville, MD 20705
 FTS: 8-344-2125

Mr. Melvin L. Jackson
 Refrigeration & Air
 Conditioning Shop
 Building 426
 BARC-East
 Beltsville, MD 20705
 FTS: 8-344-2250

Mr. George S. Marrow, Jr.
 Pesticide Degradation Laboratory
 Room 100, Building 050
 BARC-West
 Beltsville, MD 20705
 FTS: 8-344-3076

* * * *

EMPLOYEE ACTIVITIES

Kenneth L. Kuttler, Chief, Livestock Protozoan Diseases Laboratory, API, has been invited by the South African Veterinary Association to present a paper on "Current Anaplasmosis Control Techniques," at the Symposium on Haemotropic Diseases, to be held in Johannesburg, September 3-7, 1979, in connection with the Biennial Scientific Congress. Dr. Kuttler plans to visit a number of research laboratories in South Africa which are currently conducting research on haemotropic diseases.

Frank N. Dickinson, Chief, Animal Improvement Programs Laboratory, ASI, was the featured speaker at the annual meeting of the American Jersey Cattle Club (AJCC), Columbia, South Carolina, in June. Following his address, AJCC presented him with a plaque of appreciation "for his contribution to genetic improvement of dairy cattle and Jerseys in particular."

* * * *

INDUSTRY USES BARC RESEARCH FINDINGS

The procedure for freezing poultry semen has been incorporated into portions of the breeding programs of Hubbard Farms, Poultry Breeding and Research, Walpole, New Hampshire. The "Beltsville Poultry Semen Extender and Freezing Procedure" was developed by USDA scientists in the Avian Physiology Laboratory, ASI. This technique is allowing Hubbard Farms to establish poultry semen banks which allow improved efficiency in breeding.

* * * *

HONORS AND AWARDS

Honors:

Gerald E. Jones, Pesticide Degradation Laboratory, AEQI, was recently honored in his hometown, Dothan, Alabama, by "Dothan 100," an organization of businessmen, for his outstanding contribution to chemistry. Mr. Jones was presented a plaque and was guest of honor at a banquet where he addressed the youth of the city.

H. Keith Goering, Ruminant Nutrition Laboratory, ASI, received the Merit Certificate from the American Forage and Grassland Council at its 1979 annual meeting. His work showed the negative effect of excessive heating and the positive effect of controlled heating of forages on protein utilization by ruminants. He validated acid detergent and pepsin insoluble nitrogen and assays for the negative effect of excessive heat. He surveyed hay-crop silage and dehydrated alfalfa with these methods and estimated a 15% to 20% loss of potentially digestible protein in each of them.

Elmer E. Jones, Jr., agricultural engineer for rural sanitation, has been elected Associate of The Conference of Local Environmental Health Administrators. This is recognition of the USDA contribution to the improvement of rural sanitation through technical assistance to local environmental health programs. Election of Associates must be by unanimous vote of the eligibility committee.

Cash Awards:

Gentner, Walter A., Weed Science Laboratory, AEQI.

Hummel, Keith A., Farm Management Branch, Division of Operations.

Oakes, Eleanor P., Chairman's Office, PGGI.

Smoot, Vernon Wayne, Poultry Unit, Animal Operations.

* * * *

RETIREMENTS

Virginia T. Griffin retired from the BARC Visitor Unit on June 16, following many years' service with the Government. She coordinated visits to BARC made by both U.S. citizens and citizens of many foreign countries. She formerly worked in the budget office of the Soil and Water Conservation Division, and in other branches of USDA. Virginia and her husband are residing in Neavitt, Maryland, on the Eastern Shore.

Connie Nelson Klingman retired June 30 after 30 years' Government service, 24 years of which were with the Department of Agriculture. At the time of her retirement, Connie was secretary to the Laboratory Chief, Field Crops Laboratory, PGGI.

Ellen Lynch, Laboratory Aide in the Horticultural Crops Marketing Laboratory, AMRI, retired on June 30 after 36 years of Federal Service at Beltsville. Ellen began her career with the Bureau of Plant Industry, Soils and Agricultural Engineering, in November 1942, and transferred to the Horticultural Crops Research Branch, Market Quality Research Division in 1965. She plans to continue residing in Washington, D.C.

* * * *

VISIT BY THE AGRICULTURAL RESEARCH SUBCOMMITTEE, NATIONAL FOOD PROCESSORS ASSOCIATION (NFPS)

On July 12, scientists in the Fruit Laboratory and the Vegetable Laboratory met with members of the NFPS subcommittee. This group represented Gerber Products; Green Giant; Naas Foods; Curtice-Burns; Del Monte; Tri/Valley Growers; Campbell Institute for Agricultural Research; American Home Foods; Michigan Fruit Cannery; and Charles G. Summers, Jr., Inc. Also attending were E. A. Crosby, senior vice president, NFPA, and R. F. Altevogt, staff secretary for NFPA's Agricultural Research Subcommittee. During the visit, the members of the Subcommittee discussed ongoing research in both laboratories and expressed their concern related to the difficulties agricultural productivity faces in the future. They repeatedly expressed the opinion that prices of agricultural products can be kept down only one way--by increasing productivity. They were interested to see that both research groups at Beltsville are making progress in this direction.

AMERICAN SEED TRADE ASSOCIATION (ASTA) VISIT

On the morning of June 28, three busloads of ASTA members were greeted in the BARC Auditorium by A. A. Hanson, Director. Presentations were given by Harold F. Winters (Germplasm Resources); James H. Elgin (Field Crops); Raymon E. Webb, Allan K. Stoner, and Gilbert D. McCollum (Vegetable Laboratory); Gerald E. Carlson (Light & Plant Growth Laboratory); and Aref A. Abdul-Baki (Seed Research).

VISITORS

Chile--Two horticulturists from Cia Frutera Sud Americana, a South American fruit export company, Santiago, Chile, visited BARC on July 9 during a tour of the U.S. They visited the Horticultural Crops Marketing Laboratory, AMRI; the Fruit Laboratory, PGGI; and the Transportation and Packaging Laboratory formerly with AMRI and now with the Agricultural Marketing Service.

District of Columbia--Ten marketing specialists from AMS, USDA, Washington, D.C., were guests of the Horticultural Crops Marketing Laboratory, AMRI, during an all-day visit to BARC on July 9. They were all members of the Fruit and Vegetable Division, AMS. Some of these marketing specialists have been with USDA for over 30 years without a visit to Beltsville. Robert E. Hardenburg, Alley E. Watada, Raymond E. Anderson, Chien Y. Wang, and Harold E. Moline had exhibits and spoke on their research.

Netherlands--Mr. B. Jongerius, fruit storage research specialist with the Institute for Research on Storage and Processing of Horticultural Produce, Wageningen, the Netherlands, visited BARC on July 19. He consulted with members of the Horticultural Crops Quality Laboratory, Instrumentation Research Laboratory, and the Fruit Laboratory, HSI.

New Zealand--Mr. Michael W. Hill, a horticulturist with Turners and Growers, Ltd., Auckland, New Zealand, visited the Horticultural Crops Quality Laboratory, HSI, and the Transportation and Packaging Laboratory, Agricultural Marketing Service, on July 16. He is with a firm of auctioneers and wholesale distributors of fruits and vegetables.

People's Republic of China--Six members of the Chinese Grain Inspection and TCK Study Team visited BARC on July 6. They were greeted by Essex E. Finney, Jr., representing the Director's Office, and then visited the Microbiological Laboratory, Bioscience Building; the Plant Germplasm Quarantine Center, Building 320; the Commodity Testing Laboratory, Building 306; and Grain Research Activities (infrared, moisture, etc.) in Building 209. Following lunch at the Log Lodge, the Visitor Unit provided a tour of the Center.

* * * *

SURPLUS EQUIPMENT

<u>Item</u>	<u>Condition</u>	<u>Contact</u>	<u>Ext.</u>
Thin Layer Electrophoresis Chamber S/N 189013FP and Savant Power Supply #339029115.	Good	C. E. Bodwell	42045

P. A. Putnam

P. A. Putnam
Acting Director, BARC

UNITED STATES DEPARTMENT OF AGRICULTURE
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AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 114

August 31, 1979

BARC AWARDS CEREMONY

The Seventh Annual BARC Awards Ceremony will be held on September 25, at 1 p.m., in the Auditorium of the Administration Building. Dr. Joan S. Wallace, Assistant Secretary for Administration, will be the guest speaker. Employees are encouraged to attend this program.

YOUTH CONSERVATION CORPS (YCC)

Where are the Army trucks, the yellow and brown hardhats, the 60 youngsters? Gone again, the YCC has completed another successful summer at the Beltsville Agricultural Research Center. With the assistance of the Farm Management Branch, Division of Operations, the enrollees beautified many of the Center's fences, flower beds, and roads. They helped Animal Operations with the daily care of farm animals and worked in many greenhouses cleaning forgotten areas. While learning about life on the farm, the enrollees also learned a great deal about themselves. They developed good work habits and lasting friendships with other members of the camp. They learned the value of a hard day's work and were introduced to many possible careers. We will miss you, U.S.D.A. Your constant support and praise for the YCC has helped to make us the camp that we are. We look forward to next summer's YCC and association with the farm.

(Dottie Marcario & Vince Wheatley, Camp Directors)

ASSOCIATION OF SUPERVISORS AND MANAGERS (ASM)

At the July 19 meeting of the ASM Council, Vice President Manya B. Stoetzel was elected to serve as President to complete James L. Vaughn's term in that office. Dr. Vaughn was recently named Chief, Insect Pathology Laboratory, PPI, and felt it necessary to resign his office as President. He will, however, continue to serve as a Council member from PPI. The Council will fill the newly created office of Vice President at their September meeting. Freddi Hammerschlag continues to serve as Secretary.

COMPETITIVE RESEARCH GRANT AWARD

On July 23, William P. Wergin, Nematology Laboratory, PPI, and Burton Y. Endo, Chairman, PPI, were awarded a Competitive Research Grant for a 2-year study entitled "Host-Parasite Interaction Involving Soybean Plants and the Root-Knot Nematode." The investigation is aimed at increasing our basic scientific understanding of how susceptible and resistant plants are stressed by a phytoparasitic nematode. The information will be used to develop new or unique methods to control nematodes and may also increase the efficiency of existing conventional programs aimed at increasing crop production by controlling plant-parasitic nematodes.

VISITING SCIENTISTS

Professor Yuko Koga of Nakamura Gakuen College, Fukuoka, Japan, spent 3 weeks of her 6-month faculty overseas study program with members of the Horticultural Crops Quality Laboratory and the Instrumentation Research Laboratory, HSI. While here, Professor Koga became familiar with our Instron and ultrasonic vibrational equipment for measuring textural properties, near infrared system for predicting fatty acid content, and high pressure liquid chromatograph for analyzing vitamins.

Dr. Adriaan J. Reinecke, Senior Lecturer in the Department of Zoology, Potchefstroom University, Potchefstroom, South Africa, is spending a 6-month sabbatical in the Pesticide Degradation Laboratory (PDL), AEQI. Dr. Reinecke will be determining the effect of pesticides on earthworms and the capabilities of earthworms to metabolize pesticides. He will be pursuing this research with the cooperation of Ralph G. Nash of the PDL.

EMPLOYEE ACTIVITIES

Likh R. Batra, botanist in the Mycology Laboratory, PPI, recently completed a book entitled "Insect-Fungus Symbiosis--Nutrition, Mutualism, and Commensalism." This publication resulted from the Second International Mycological Congress, which was held in Tampa, Florida, in August 1977. The book discusses problems concerning mycetophagous and xylemycetophagous insects; covers systematics, morphology, physiology, and ecology; and provides a large up-to-date bibliography. The publisher is John Wiley & Sons.

CHANGES IN COMMITTEE ASSIGNMENTS

BARC EEO Committee

Laura M. Franklin, Laboratory Services, Office of Chairman, API, replaced Eleanor C. Moore, Non-ruminant Helminthic Diseases Laboratory, API.

CHANGES IN COMMITTEE ASSIGNMENTS (Cont'd.)

BARC Small Animal Care Committee

Ben H. Stroud is the new Chairman of this committee replacing Howard Opel who is rotating off.

BARC Safety Committee

Rachel C. Lawrence, Systematic Entomology Laboratory, IIBIII, replaced Patty Kessler Schroder, Office of Chairman, IIBIII.

BARC Science Seminar Committee

N. Jerry Chatterton, Light and Plant Growth Laboratory, PPHI, has rotated off the committee. No replacement.

HONORS AND AWARDS

Quality Increases:

Lehnert, Kenneth G., Florist & Nursery Crops Laboratory, PGGI.

Treger, Carol H., Biological Waste Management & Organic Resources Laboratory, AEQI.

Cash Awards:

Hungerford, Wayne E., Light & Plant Growth Laboratory, PPHI.

Nielsen, John H., Field Crops Laboratory, PGGI.

Poole, Lydia R., Plant Taxonomy Laboratory, PGGI.

Honors:

Philip C. Kearney, Chief, Pesticide Degradation Laboratory, AEQI, was among 18 distinguished scientists from nine countries who were named recipients of the "Adventurers in Agricultural Science" award sponsored by the IX International Congress on Plant Protection, in Washington, D.C., on August 11. The award was signed by Dr. James Horsfall, President of the Congress, and Secretary Bergland.

In recognition of his outstanding contributions to plant virus research, Irving R. Schneider, Plant Virology Laboratory, PPI, was honored by being named a Fellow of the American Phytopathological Society, at the 71st Annual Meeting in Washington, D.C., this month. Dr. Schneider's numerous contributions include virus purification procedures, virus translocation studies, and the discovery and continuing study of tobacco ringspot virus, a new type of satellite virus which interferes with replication of its host virus. Dr. Schneider transferred from the Growth Regulator and Antibiotic Laboratory to the Plant Virology Laboratory in 1963 and just retired (Aug. 7) after 27½ years' service.

Honors: (Cont'd.)

Gene J. Galletta and Richard H. Zimmerman, Fruit Laboratory, HSI, were among 14 honored horticulturists recently elected as Fellows of the 4,000-member American Society for Horticultural Science during its 16th Annual Meeting in Columbus, Ohio. Dr. Galletta was honored for his research in the development of superior blueberry and strawberry cultivars in North Carolina and Maryland; for leadership in coordinating Federal-State cooperative small fruit improvement programs in eastern producing areas; for outstanding success as a teacher and advisor of students at North Carolina State University; and for extensive service to the Society in committee assignments. Dr. Zimmerman was honored for his major contributions to the understanding of juvenility of woody plants; for innovative use of computerization of breeding programs; for a leading role in tissue culture propagation of fruit-bearing plants; and for service to the Society as Associate Editor.

EXPORT MARKETING RESEARCH CITED

The European Marketing Research Center (EMRC) in Rotterdam recently received the Foreign Agriculture Service's Blue Ribbon Award for contributions to the Foreign Agriculture magazine in 1978. The EMRC has been engaged in a long-range program of research to expand opportunities for marketing U.S. agricultural commodities in Europe. The award was presented to Roy E. McDonald, Anton J. Bongers, Ben M. Hillebrand, Marijke Michel, and Lawrence A. Risse "for excellence in reporting developments significant to American agriculture." Dr. Roy McDonald, the research leader at EMRC, recently completed his tour of duty in Rotterdam and will soon return to Beltsville for a new assignment.

VISITORS

Egypt--Dr. Fikry F. Moussa, Associated Research Professor, Nematology Research Center, Faculty of Agriculture, Cairo University, Giza, visited the Nematology Laboratory, PPI, August 1-3. He is a cooperating scientist with Raymond V. Rebois on a PL-480 Project on "Screening of Commercially Important Crops for Resistance to Specific Nematodes." While on travel in the U.S., Dr. Moussa visited several Federal and State nematology laboratories.

England--Dr. John A. Walsh, Nematology Department, Rothamsted Experimental Station, visited the Nematology Laboratory, PPI, August 13. He presented a seminar entitled, "Rickettsia of the Potato Cyst Nematode." Dr. Walsh won the "Best Student Paper" award at the Society of Nematologists meeting held in Salt Lake City in July.

Hawaii--Dr. Walter J. Apt, Plant Pathologist, Department of Plant Pathology, University of Hawaii, Honolulu, visited the Nematology Laboratory, PPI, on August 3. He presented a highly interesting and informative seminar, "Reniform Nematode Problems on Pineapple." This seminar was attended by many scientists from the Plant Protection Institute.

People's Republic of China (PRC)---Dr. Shang Yin Gao, Professor of Virology and Vice President of Wuham University, Wuchang, Hupch, PRC, visited with the scientists in the Insect Pathology Laboratory, PPI, on August 9. Dr. Gao was interested in the laboratory's research on the replication of insect viruses and in the biocontrol of armyworms and imported cabbageworms with several entomopathogenic viruses.

VISIT BY THE ANIMAL HEALTH DELEGATION OF THE PEOPLE'S REPUBLIC OF CHINA (PRC)

On July 24, the Animal Parasitology Institute (API) was visited by six veterinary medical scientists from the PRC. An interpreter from the Information Office of the Chinese Academy of Agricultural Sciences, and Dr. David Shen, USDA Pioneering Research Laboratory, Pullman, Washington, accompanied the group. Paul A. Putnam, Acting Director, greeted the group and Frank D. Enzie, API Chairman, presented a brief overview of the Institute and facilities. Current research programs and activities were presented by Kenneth L. Kuttler (Livestock Protozoan Diseases); Michael D. Ruff (Poultry Protozoan Diseases); Harry Herlich (Ruminant Helminthic Diseases); Frank G. Tromba (Nonruminant Helminthic Diseases); and Shirley J. Edwards (Index-Catalogue of Medical and Veterinary Zoology). The visitors toured some of the laboratories and observed ongoing research with Frank W. Douvres (in vitro cultivation of parasitic nematodes); Robert S. Rew (drug resistance and mode of action of anthelmintics); and Michael D. Ruff (scanning electron microscope photographs of avian coccidiosis). There was an exchange of published materials and a mutual pledge to continue these exchanges of materials and correspondence on scientific matters.

VISITORS TO THE ANIMAL SCIENCE INSTITUTE (ASI)

A group of five foreign scientists visited ASI for several days during the month of July. Rex Powell and George R. Wiggans, Animal Improvement Programs Laboratory, discussed genetic evaluation of dairy cattle. The visitors also met with Max J. Paape and W. Don Schultze, Milk Secretion and Mastitis Laboratory, Douglas J. Bolt, Reproduction Laboratory, and Ben Bereskin, Nonruminant Animal Nutrition Laboratory. Ray Schar (APHIS) discussed the National Poultry Improvement Plan with these visitors who were from Sweden, Switzerland, Australia, India, and Finland.

SEED CORN REPRESENTATIVES VISIT BARC

Five bus loads of Midwest farmers visited BARC on July 25. These farmers are also hybrid seed corn salesmen for the Crows Hybrid Seed Company and the tour was part of their visit to Washington, D.C., as a reward for their good work for that firm. The Visitor Unit arranged stops at the Animal Science Institute (Lewis W. Smith); Biological Waste Management and Organic Resources Laboratory, AEQI, (James F. Parr, Jr.); and the Bioenvironmental Bee Laboratory, PPI, (H. Shimanuki).

P. A. Putnam

P. A. Putnam
Acting Director, BARC

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

AGRICULTURAL RESEARCH
NORTHEASTERN REGION
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 115

November 28, 1979

VISITING SCIENTISTS OFFER STRONG SUPPORT TO THE BARC RESEARCH PROGRAM

There were 17 foreign research associates at BARC during 1979. These scientists represent 11 countries and are working in 13 laboratories in 7 Institutes. In addition, there are 4 Intergovernmental Personnel Act appointees (visiting professors) and 5 postdoctoral research associates. Furthermore, there are 17 visiting scientists and 19 students on other types of appointments conducting research in BARC laboratories. These 62 appointees not only honor us with their presence but provide an invaluable stimulus of new ideas and enthusiasm to the research program. Their presence supports the contention that Agricultural Research is a truly cosmopolitan adventure in the search of knowledge as a public service.

INVITATION TO FOREIGN VISITORS

Maryland International Friendship Families (MIFF) is an organization working through the University of Maryland International Services Office. Its purpose is to ease the cultural shock and aid foreign visitors to adjust to life in the United States. A meeting is held on the second Tuesday of each month to allow for expanded contact with other Internationals and a formal exposure to life in the U.S. There are also coffee-conversation group meetings in homes on an irregular basis. Whenever possible, MIFF attempts to arrange transportation.

MIFF is open to all individuals. Families of Embassy and World Bank personnel, as well as families of Maryland students and postdoctoral visitors have been participating. BARC frequently has visiting International scientists who come for long periods of study and may bring their families with them. MIFF extends an invitation to any Internationals or Americans at Beltsville to join the group. Visitors may call any of the following individuals for further information: Mrs. Marjorie Moseman, President, MIFF, 434-3893; Mrs. Marie Cooper, 927-1865; Mrs. Mary Cowan, 937-2110; or International Services Office, 454-3043.

CONTROL OF GYPSY MOTH BY PHEROMONES

Under the name of "Luretape," the gypsy moth sex attractant pheromone dispenser was registered on August 28, 1979, by the Environmental Protection Agency for suppression of gypsy moth populations. The controlled-release dispensers are deployed in grid pattern at 10-meter intervals in the area to be treated. Disparlure, the pheromone was first identified and synthesized at Beltsville and the formulations have been developed

CONTROL OF GYPSY MOTH BY PHEROMONES (Continued)

and evaluated by cooperative efforts among scientists from BARC, the State of Maryland, and APHIS. Much of the formulation study was conducted in the Organic Chemical Synthesis Laboratory, AEQI, and the field evaluation was led by Ralph E. Webb of the Florist and Nursery Crops Laboratory, HSI.

CATALOG OF HYMENOPTERA IN NORTH AMERICA

The long-awaited Catalog of Hymenoptera in North America has been published. Major portions of this catalog, published by the Smithsonian Institution Press, were prepared by scientists of the Systematic Entomology Laboratory, IIBIII; namely, Robert W. Carlson; E. Eric Grissell; Paul M. Marsh; David R. Smith; B. D. Burks (retired); and G. Gordh (now at the University of California). Editorial responsibilities were shared by K. V. Krombein and P. D. Hurd, Jr. (Smithsonian Institution), and B. D. Burks and D. R. Smith (Systematic Entomology Laboratory). This catalog provides access to the taxonomic and biological literature on the 18,000 species of North American ants, bees, stinging wasps, parasitic wasps, and sawflies. In addition, because the catalog was produced by a computer-based system, all the information stored in the data bank is available for searching in any of numerous combinations. Periodic updating of the data bank will be made to keep the literature and taxonomic information current. This catalog and data bank will be of extreme value to workers in biological control as well as taxonomists of Hymenoptera.

GERMPLASM RELEASE

The Field Crops Laboratory, PGGI, released a cytoplasmic male-sterile monogerm sugarbeet line and its pollen fertile maintainer, SP78564-01 CMS and SP78564-0 0-type. These numbers are moderately resistant to Aphanomyces black root disease and highly resistant to Cercospora leaf spot. This material has potential for use by sugarbeet breeders as a source of leaf spot resistance or for use directly in the production of single cross or 3-way commercial hybrids. It was developed by Gerald E. Coe, of BARC, and Dr. George J. Hogaboam, USDA, East Lansing, Michigan.

COOPERATIVE RESEARCH

Deane F. Weber and Charles Sloger, Cell Culture and Nitrogen Fixation Laboratory, PPHI, were invited participants in the Conference on Nitrogen Fixation and Photosynthesis Research in the People's Republic of China (PRC), at the National Academy of Sciences, Washington, D.C., on October 8. The purpose of this meeting was to explore the location and extent of work being done on nitrogen fixation and photosynthesis research in the PRC and how U.S. institutions and individual scientists can best collaborate and cooperate with proper institutions in the PRC.

Dr. James Oblinger, Department of Food Science and Human Nutrition, University of Florida, has completed a 3-month sabbatical at the Meat Science Research Laboratory, ASI. During this period he cooperated in research to identify and enumerate the microorganisms associated with variety meats (tongues, hearts, livers, and kidneys) for export to Europe.

COOPERATIVE RESEARCH (Continued)

Because of his short stay, the project was cooperatively planned before his arrival and was almost completed by his date of departure. He will complete the identification of unknown bacteria at Florida. Dr. Oblinger was particularly interested in obtaining in-plant research experience in meats and interacting with the needs of the action agencies.

ELECTION OF ASSOCIATION OF SUPERVISORS AND MANAGERS

On September 20, 1979, the Council of the Beltsville Association of Supervisors and Managers (ASM), elected Neal O. Morgan, Livestock Insects Laboratory, AEQI, to be their Vice President. Manya Stoetzel, Systematic Entomology Laboratory, IIBIII, was elected President.

AR AND SEA STAFF TOUR

Thirty AR and SEA staff members took advantage of a BARC program designed to illustrate the breadth and depth of the AR (and BARC) research programs. The tour lasted over 1/2 day and included presentations on research from each of the eight BARC Institutes. Those making presentations included: Ronald W. Hodges (IIBIII); Miklos Faust (HSI); Russell L. Steere (PPI); Charles D. Foy (PPHI); James H. Elgin (PGGI); Ronald Fayer (API); Harold W. Hawk (ASI); and John M. Taylor (AEQI). Interactions among NRP's, laboratories, and SY's were emphasized.

THERMOPLASTIC WATER WELL CASING MANUAL COMMITTEE MEETS AT BARC

The Thermoplastic Water Well Casing Manual Committee, a joint committee of the National Water Well Association (NWWA) and Plastic Pipe Institute (PPI) met at BARC July 25-26, in order that Elmer E. Jones, Rural Sanitation Engineer, Cooperative Farm Building Plan Exchange Unit, could meet with the committee. In attendance were: Tyler E. Gass, NWWA, Worthington, Ohio; Stanley A. Mruk, PPI, New York City; Kermit Janssen, Certainteed Corporation, Valley Forge, Pennsylvania; Tom Switalski, Well Construction Products, Valley Forge, Pennsylvania; Robert C. Wilging, B. F. Goodrich Chemical Company, Cleveland, Ohio; and Carl E. Kurt, Department of Civil Engineering, Auburn University, Auburn, Alabama.

BARC CONFERENCE ROOMS

The Conference Room in Building 177B, BARC-East, is now ready for use. The seating capacity is limited to 40. Make reservations through the Visitor Unit on X42403.

The Conference Room on the Fourth Floor of Building 003 is no longer available. The Visitor Unit has made alternate arrangements for meetings previously scheduled for that location.

energy notes

BELTSVILLE RESEARCH CENTER ENERGY COMMITTEE

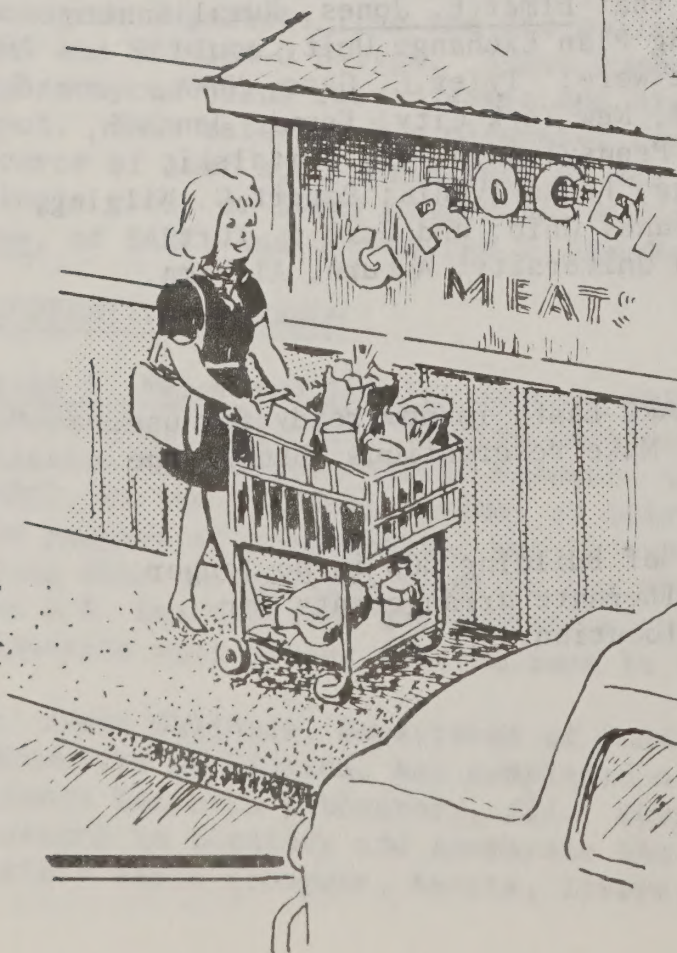
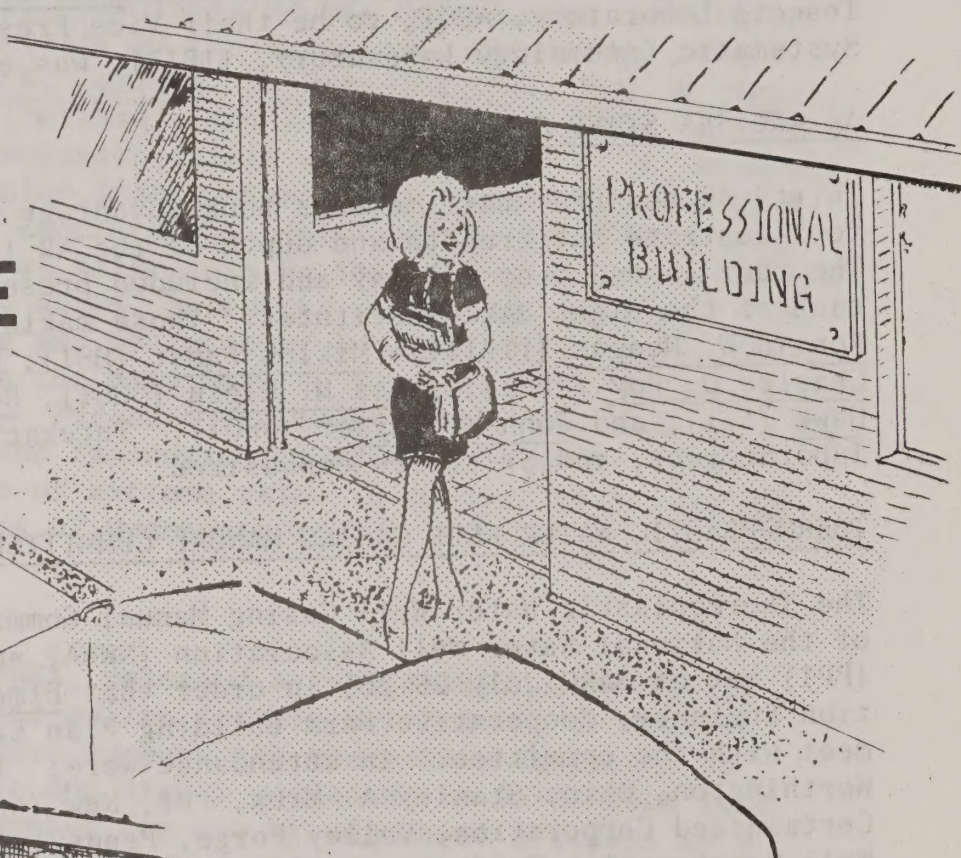
SEA, U.S.D.A.

1979

COMBINE TRIPS



... SAVE GAS



NEW EMPLOYEE

William S. Conway, Research Plant Pathologist, joined the Horticultural Crops Quality Laboratory, HSI, on September 4. Dr. Conway transferred from State University Agricultural and Technical College, Delhi, New York. His Ph. D. degree was earned at the University of New Hampshire.

RECEIVES DEGREE

On August 24, 1979, Alonza R. Hayden of the Meat Science Research Laboratory, ASI, received his Ph. D. degree from the University of Wisconsin, Madison. Dr. Hayden was a meat and animal science major with a distributed minor in physiology and biochemistry. Dr. Hayden's dissertation was entitled "Immunochemical Determination of Species of Origin of Meat Products."

RETIREMENTS

Raymond E. "Andy" Anderson, Horticultural Crops Quality Laboratory, HSI, retired on August 31 with 26 years of Federal service. Dr. Anderson's career with the Department of Agriculture started in April 1957, in the Quality Maintenance and Improvement Section, Biological Sciences Branch, Marketing Research Division, AMS. Numerous organizational changes have occurred over the years but all of his service has been at BARC conducting research in postharvest horticulture in the South Wing of the Administration Building.

Ronald W. Penney, Horticultural Crops Quality Laboratory, HSI, retired on August 21 with 24 years of Federal service. He was born in New York State and raised in New Jersey. He received a bachelor's degree in mechanical engineering at Stevens Institute of Technology, Hoboken, New Jersey. In 1955, Ron accepted a position as a Research Mechanical Engineer with the Transportation and Facilities Division, USDA. His primary work was the development of standards for refrigerated transport of fruits and vegetables. In 1967, Ron transferred to the Horticultural Crops Quality Laboratory, HSI, succeeding Walt Redit. His main research has been in the development and improvement of techniques for environmental control and maintenance of controlled atmospheres for fruit storage.

TRANSFERRED

Richard H. Day, Horticultural Crops Quality Laboratory, HSI, recently transferred to the new Kearneysville Fruit Laboratory in West Virginia. On September 3, 1979, he had a total of 35 years' Federal service. His career began here at the Beltsville Plant Industry Station with BPISAE. He spent a 5-year period with Soil and Water Conservation, Brawley, California, and then returned to the Beltsville area. He has spent the past 13 years with the Horticultural Crops Quality Laboratory.

DEATH OF BARC SCIENTIST

Arthur M. Heimpel, Insect Pathology Laboratory (IPL), PPI, passed away suddenly on Saturday, November 10, as the result of a heart attack. Dr. Heimpel joined the USDA in 1961 as Head, Insect Pathology Pioneering Research Laboratory, a position he held until this past summer. He also served as the National Technical Advisor for Insect Pathology. During his 18 years of service to the USDA and to the field of insect pathology, he contributed in many ways to the growth of the IPL and to the science of insect pathology.

EMPLOYEE ACTIVITIES

Several scientists of the Systematic Entomology Laboratory (SEL) and the Beneficial Insect Introduction Laboratory (BIIL), IIBIII, in cooperation with the USDA's Radio and Television Division, recently filmed segments for the children's sections of the television program "A Better Way." Arnold S. Menke (SEL) filmed a segment on wasps, pointing out that these insects are largely beneficial rather than harmful. Lloyd Knutson, Chairman of the Institute, supported by the children of Paul M. Marsh (SEL) talked about the importance of quarantine inspection at airports and the kinds of foreign insects that are prevented from entering the United States. Dr. Knutson also prepared a segment on some of the wonders of the insect world from the National Collection of Insects. Suzanne W. T. Batra (BIIL) participated in filming a segment describing her research on wild bee pollinators in orchards.

Robert M. Faust, Research Entomologist, Insect Pathology Laboratory, PPI, presented an invited paper entitled, "Genetic Manipulation of Microbial Control Agents--Application and Research Developments: Insect Bacteria," in a special symposium on genetic manipulation of microorganisms at the XII Annual Meeting of the Society of Invertebrate Pathology, held in Gainesville, Florida, August 26-30.

Douglas C. Ferguson, Systematic Entomology Laboratory, IIBIII, spent 4 weeks in June and July conducting a survey of the moths of the Priest River Experimental Forest, Bonner County, Idaho. The survey was concerned mainly with species associated with shrubs and conifers at elevations of 2,300 to 5,900 feet. He was invited to work at Priest River by Project Leader M. L. Furniss, Forestry Sciences Laboratory, Moscow, with whom he also consulted about unidentified, shrub-infesting loopers damaging bitterbrush and mountain mahogany in Utah and Nevada. The material collected--about 3,500 moths--is now in the U.S. National Museum and will result in the first compilation of data on Lepidoptera of the Priest River Forest which, in turn, will facilitate accurate identification of the pest species.

Ronald W. Hodges, Chief, Systematic Entomology Laboratory, IIBIII, attended the annual meeting of the Lepidopterists' Society at the University of Alaska, Fairbanks, during June 1979. He presented a paper on the laboratory's indepth computer-based cataloging program of the New World Fruit Flies, which is a pilot project for future cataloging of additional high-priority groups of insects and mites.

EMPLOYEE ACTIVITIES (Continued)

Raymond J. Gagné, Systematic Entomology Laboratory (SEL), IIBIII, traveled to Angers, France, June 19-26, and purchased a unique, important collection of Hemiptera (true bugs) from Africa and Madagascar for the National Collection of Insects. This collection will extend the SEL's research and identification capabilities. All costs of the trip and payment for the collection were borne by the Smithsonian Institution out of the Carl J. Drake bequest. While in France, Dr. Gagne visited colleagues at the Museum National d'Histoire Naturelle, in Paris, to discuss research projects of mutual interest.

Raymond J. Gagné, Systematic Entomology Laboratory, IIBIII, visited the Screwworm Laboratory, Mission, Texas, July 9-12, to discuss with Laboratory Leader J. Wendell Snow, and his staff, the needs for taxonomic research on the primary screwworm and related species.

Larry A. Johnson, Reproduction Laboratory, ASI, served as consultant to the U.S. Feed Grains Council and the Foreign Agricultural Service, from September 29 to October 15. Dr. Johnson traveled to Taiwan, Hong Kong, and Korea advising on swine artificial insemination, semen storage, and processing technology. He also presented seminars at the Pig Research Institute of Taiwan, the Hong Kong Pork Producers Association, and the Yunam Livestock College, Sunghwan, Korea.

Douglass R. Miller, Systematic Entomology Laboratory, IIBIII, and John A. Davidson, Department of Entomology, University of Maryland, spent 3 weeks in California taking detailed pictures of scale-insect pests. The photographs will be used in a comprehensive book on the identification of economic scale insects of the United States.

Lowell Owens, Cell Culture and Nitrogen Fixation Laboratory, PPHI, presented the introductory paper entitled "Towards the Genetic Transformation of Plants," at a symposium on Genetic Engineering which was held August 8 in Washington, D.C. The symposium was sponsored by the American Phytopathological Society and was held in conjunction with the International Congress on Plant Protection.

David R. Smith, Systematic Entomology Laboratory, IIBIII, spent 23 days during May conferring with colleagues and studying insects collections in Japan. He was able to study many unique type (voucher) collections which were necessary to complete a world catalog of sawflies that he is preparing.

BARC AWARDS CEREMONY

Dr. Joan S. Wallace, Assistant Secretary of Agriculture for Administration, was the guest speaker at the Seventh Annual Awards Ceremony at BARC on September 25, 1979. Both performance and length of service certificates were presented to approximately 200 employees. Mr. Jesse L. Humphrey, Animal Science Institute, had the distinction of being the

BARC AWARDS CEREMONY (Continued)

only BARC employee to receive a 40-year length of service certificate. The certificate was presented to Mr. Humphrey by Dr. Steven C. King, Regional Administrator for Agricultural Research.

The Director's Office wishes to acknowledge the contributions of the following individuals who assisted with the awards program;

Dr. H. M. Cathey - floral arrangements
Mr. Terry O'Driscoll - slides
Mrs. Evelyn Hobbs - arrangements for guest speaker
Mrs. Vivian Kirkpatrick - program development
Mrs. Mary McDonough - program assistance

HONORS AND AWARDS

Cash Awards:

Anderson, Raymond E., Horticultural Crops Quality Laboratory, HSI.
Briscoe, J. McDonald, Ruminant Helminthic Diseases Laboratory, API.
Epling, Marjorie A., Engineering and Planning Branch, Division of Operations.
Fenwick, Roger, Utilities and Services Branch, Division of Operations.
Harrington, Virginia B., Nematology Laboratory, PPI.
Hobbs, George A., Farm Management Branch, Division of Operations.
Lambert, Wilmer Lee, Nonruminant Helminthic Diseases Laboratory, API.
Parsons, Delbert L., Swine Unit, Animal Operations Unit.
Pearson, Blev B., Vegetable Laboratory, HSI.
Vinten-Johansen, Christian, Light and Plant Growth Laboratory, PPHI.
Walsh, Ruth I., Water Data Laboratory, PPHI.
Wilson, Norman L., Engineering and Planning Branch, Division of Operations.

Special Cash Award:

Snider, Kathryn L., Animal Operations Unit, BARC Director's Office. For conscientious service in assisting and promoting our Young Adult Conservation Corps (YACC) Program at Beltsville. Her input helped put the YACC Program in motion. Due to a limit on personnel ceilings, this Program was (and is) an answer in making people available to accomplish the missions of the Center and Region.

Enzie, Frank D., Chairman, Animal Parasitology Institute. For his leadership in promoting the safety program resulting in increased safety consciousness within the Animal Parasitology Institute.

Quality Within-Grade Increases:

Bange, Faith, Meat Science Research Laboratory, ASI.
Baum, Philip, Vegetable Laboratory, HSI.
Hanes, Henry, Germplasm Resources Laboratory, PGGI.
Jacobs, Jr., Thomas B., Ruminant Nutrition Laboratory, ASI
Walter, George W. L., Vegetable Laboratory, HSI.
Zeichner, Brian C., Vegetable Laboratory, HSI.

HONORS AND AWARDS (Continued)

Charles Sloger, Cell Culture and Nitrogen Fixation Laboratory, PPHI, was recently awarded a Competitive Research Grant for a 2-year study entitled "Physiology of Immediate Nitrogenase Activity by Grasses." The objective of the research is to determine the physiological conditions controlling immediate nitrogenase activity by the grasses Spartina alterniflora, wild rice, and domestic rice. The investigation is aimed at increasing our basic knowledge about nitrogen-fixing bacteria associated with roots of grasses.

Robert L. Moore, Biological Lab Technician, Livestock Protozoan Diseases Laboratory, API, has accumulated over 3,000 hours of sick leave. Quite an achievement!

At a recent meeting of the International Union of Pure and Applied Chemistry, held at Davos, Switzerland, Philip C. Kearney, Chief Pesticide Degradation Laboratory, AEQI, was elected Chairman of the new amalgamated Commission on Pesticide Chemistry. The Commission is comprised of 24 international scientists representing 11 nations. Each scientist is the pesticide expert in his respective country.

VISITORS

INTERNATIONAL JOURNALISTS VISIT BARC

A group of 70 journalists who report on agriculture around the world visited BARC on September 7, 1979. A tour of the Center was arranged with stops scheduled to see selected portions of our research dealing with fruit breeding, cereal grains, mastitis in dairy cattle, ruminant nutrition, and sludge composting. The visitors represented the press corps from England, France, Germany, Sweden, South Africa, and Italy. Deere & Company arranged for the tour of Beltsville.

CENTRAL INTELLIGENCE AGENCY (CIA) SENIOR SEMINAR TOUR

The Visitor Unit presented a tour to approximately 20 CIA personnel on October 10. Essex E. Finney, Jr., Assistant Director, greeted the group before they proceeded to the Fruit Laboratory, HSI (Gene Galletta); Reproduction Laboratory, ASI (Harold Hawk); Plant Virology Laboratory, PPI (Russell Steere); Pesticide Degradation Laboratory, AEQI (Philip Kearney); and the Human Nutrition Center (Walter Mertz).

Argentina--On September 11, Señor Lino Luis Ledesma, Head of the Natural Resources Department, Chaco Province; Señor Adolfo Gustin, President of the Natural Resources Institute; and Señors Jose Rodiragez and Jorge Velida, technicians at the Institute, visited with John G. Moseman, Chairman, PGGI; James A. Duke, Chief, Economic Botany Laboratory, PGGI; and Edwin T. Engman, Chief, Hydrology Laboratory, PPHI.

VISITORS (Continued)

Denmark--The Animal Improvement Programs Laboratory (AIPL), ASI, was recently visited by Mr. Arne Thorsen, Head Extension Officer, Danish Agricultural Electronics Data Systems Center, and Mr. Martin Jeppesen, National Extension Officer at the Danish Agricultural Advisory Center, Viby J, Denmark. Frank N. Dickinson, Chief, AIPL, discussed data processing procedures used to exchange data among cooperators in the National Cooperative Dairy Herd Improvement Program.

England--Dr. Derek Cowling, plant nutrition and air pollution scientist, Grassland Research Institute, Hurley, England, visited Donald T. Krizek, Jesse H. Bennett, and Howard E. Heggstad, Plant Stress Laboratory, PPHI, on October 12-15. He also presented the Plant Physiology Seminar entitled "Atmospheric SO₂ and Sulfur Nutrition of Forage Crops."

Hungary--Dr. S. Gergely, from the Horticultural Research Institute, Budapest, has returned to his country after completing 5 months as a visiting scientist in the Fruit Laboratory, HSI. Dr. Gergely was supported by a United Nations Fellowship and worked on the effect of drought on ion uptake in apples under the guidance of Miklos Faust, Chief of the Fruit Laboratory.

India--Dr. R. Nagabhushanam, Head of the Zoology Department, Marathwada University, Aurangabad, visited the Ruminant Helminthic Diseases Laboratory, API, September 17-19. He is the principal investigator for a PL-480 Project "Control of the Molluscan Agents of Helminth Parasites of Agricultural Veterinary Importance" for which Robert A. Knight is the cooperating scientist.

Japan--Dr. Toshihiko Iizuka, Assistant Professor, Faculty of Agriculture, Hokkaido University, Sapporo, Japan, is spending 9 months with Robert M. Faust, Insect Pathology Laboratory, PPI, to pursue basic research on the genetics of sporulation and toxin production of entomopathogenic bacteria. Dr. Iizuka is being funded by a fellowship from the Ministry of Education of Japan. His wife and two children have accompanied him to the U.S.

Korea--On August 14, Professor Moon Soon Im, from the College of Agriculture, Kon-Kuk University of Korea, met with Arthur M. Heimpel, and other staff members of the Insect Pathology Laboratory, PPI.

Missouri--On October 23, Dr. Keith J. Smith, Director of Research, American Soybean Association, St. Louis, met with Robert C. Leffel, NPS, and some of the research scientists studying soybeans at BARC. He was especially interested in research dealing with the soybean cyst nematode. The following individuals met with Dr. Smith: Burton Y. Endo, Chairman, PPI; Gideon W. Schaeffer, Chief, Cell Culture and Nitrogen Fixation Laboratory, PPHI; Gerald E. Carlson, Chief, Light and Plant Growth Laboratory, PPHI; Meryl N. Christiansen, Chief, Plant Stress Laboratory, PPHI; Judith B. St. John, Weed Science Laboratory, AEQI; Karl H. Norris, Chief, Instrumentation Laboratory, HSI; and A. A. Abdul-Baki, Chief, Seed Research Laboratory, PGGI. In addition, Dr. Smith met with the following scientists from the

VISITORS (Continued)

Plant Physiology Institute: N. Jerry Chatterton, Light and Plant Growth Laboratory; Perry B. Cregan, Thomas E. Devine, and Charles Sloger, Cell Culture and Nitrogen Fixation Laboratory.

Netherlands--Dr. Just M. Vlak from the State Agricultural University, Binnenhaven, Wageningen, Netherlands, visited with James L. Vaughn, Chief, Insect Pathology Laboratory, PPI, and other staff scientists, when he visited BARC on August 24. He also presented a seminar on "Physical Mapping of the DNA of the Nuclear Polyhedrosis Virus of the Alfalfa Looper, Autographa californica."

Netherlands--On September 13, Dr. J. P. G. Gerrits of the Proefstation voor de Champignoncultuur, Netherlands, visited with James P. San Antonio and Kenneth L. Deahl, Vegetable Laboratory, HSI, regarding the mushroom research facility and project.

Oregon--On October 17, Dr. Harold J. Evans, Oregon State University, visited BARC to consult with David Kuykendall, Cell Culture and Nitrogen Fixation Laboratory, PPHI. The visitor wanted to learn more of the work on the development of gene transfer systems for Rhizobium japonicum. Dr. Evans' most recent investigations have defined the role of hydrogenase in the efficiency of nitrogen fixation and have demonstrated autotrophic growth in hydrogenase-positive strains of Rhizobium.

Russia--Dr. A. N. Lukyanenko, USSR Wild Sunflower Collection Team, visited Raymon E. Webb, Chief, Vegetable Laboratory, HSI, on October 1. He consulted with Dr. Webb on vegetable breeding, including the potato.

South Africa--Dr. A. J. Van Der Merwe, Chief of the Soil Fertility and Plant Nutrition Research Section, Department of Agricultural Technical Services, Republic of South Africa, visited BARC recently. He consulted with Thomas E. Devine, Cell Culture and Nitrogen Fixation Laboratory, PPHI, regarding research in breeding soybeans for tolerance to mineral stresses.

South Africa--Dr. Derek M. Scotney, Assistant Director, Department of Agricultural Technical Services - Natal Region, visited with Edwin T. Engman and Thomas J. Jackson of the Hydrology Laboratory, PPHI, on September 21. Dr. Scotney was interested in the laboratory's research on remote sensing, effects of land use on water resources, and the hydrologic properties of soils.

South Africa--Mr. C. Turner, Project Engineer for Grenco, Ltd., a refrigeration engineering firm located at Cape Town, spent 2 days with Raymond E. Anderson and Harold E. Moline, Horticultural Crops Quality Laboratory, HSI. They visited controlled atmosphere apple storage facilities near Gettysburg, Pennsylvania, and Winchester, Virginia.

Washington--Dr. Carl A. Johansen, Washington State University, Pullman, visited with H. Shimanuki, Chief, Bioenvironmental Bee Laboratory, PPI,

VISITORS (Continued)

on September 12-14. Dr. Johansen presented a seminar entitled "Bee Poisoning and Insect Pest Management." Dr. Johansen is noted for his research on pollination, bee poisoning, and insect pest management.

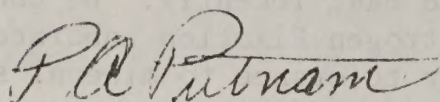
West Germany--Dr. Gudrun Koeniger, Institut fur Bienenkunde, visited with H. Shimanuki, Chief, Bioenvironmental Bee Laboratory, PPI, on August 22-24. Dr. Koeniger is interested in the work performed by the lab as well as beekeeping in the United States.

Yugoslavia--Dr. Ljubisa Vasiljevic, Director of the Plant Protection Institute, Drajzera, Yugoslavia, visited with Arthur M. Heimpel of the Insect Pathology Laboratory, PPI. Dr. Vasiljevic has been very active in the use of viruses (NPV) against forest insect pests for the past 15 years in Yugoslavia, and has been in contact with BARC most of that time.

SURPLUS EQUIPMENT

<u>Item</u>	<u>Condition</u>	<u>Contact</u>	<u>Ext.</u>
Two coat racks	Good	M. Fellows	42403

Dr. Dave Carlson, Research Chemist, Insects Affecting Man and Animals Research Laboratory, Gainesville, Florida, needs a surplus UV-Visible Spectrophotometer equivalent to the Perkin-Elmer Model 139 in capability. Anyone having such a spectrophotometer that they are willing to part with can call Dr. Carlson on FTS 8-947-7290.



P. A. PUTNAM, Acting Director
Beltsville Agricultural Research Center